

The
OHIO STATE UNIVERSITY
BULLETIN

VOLUME XXXI

MARCH 5, 1927

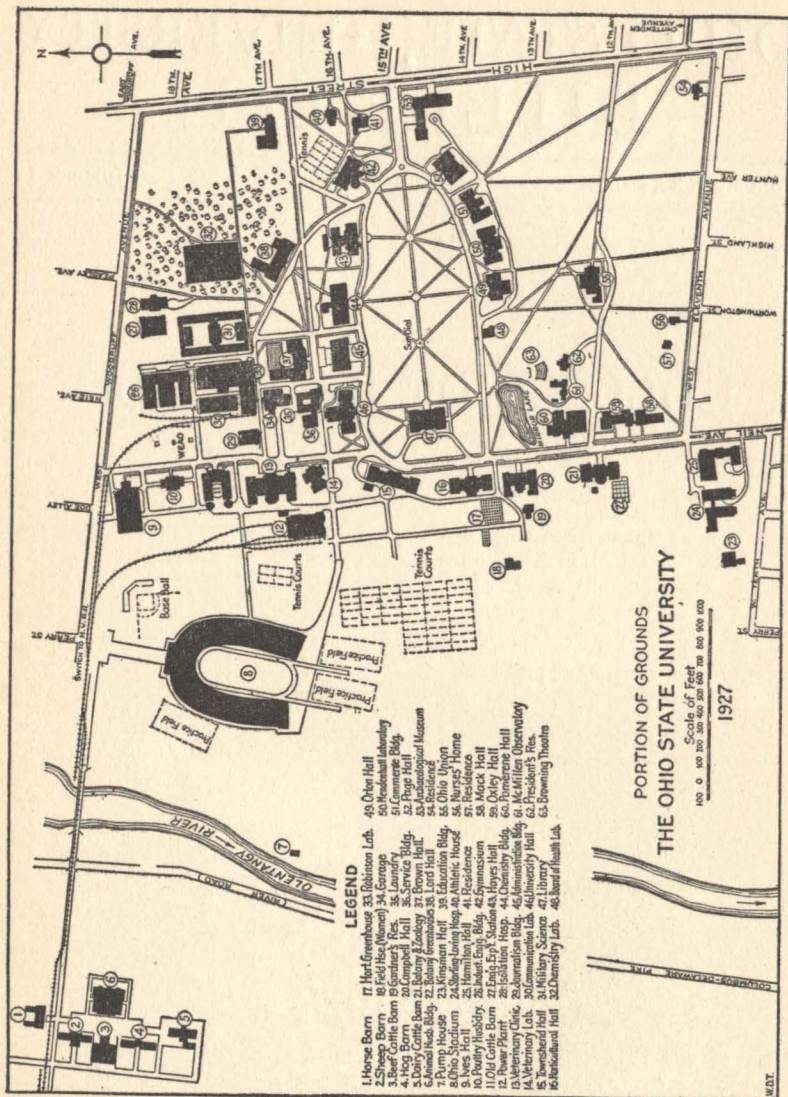
NUMBER 17

COLLEGE OF EDUCATION

1927-1928

PUBLISHED BY THE UNIVERSITY AT COLUMBUS

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JANUARY.							FEBRUARY.							MARCH.							APRIL.								
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31	31
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UNIVERSITY CALENDAR

SUMMER QUARTER

June 6 to 10
June 17 to 22
June 18 (12 noon)

June 20
June 25
July 4
July 21, 22, 23
July 22, 23
July 23
July 25
July 30
August 29, 30, 31
August 31
August 31

1927

Entrance Examinations.
Physical Examinations for all new students.
Latest day for registration and payment of fees without penalty. (See page 24.)
Classes begin, 7:30 A. M.
Intelligence Test for all new students (Saturday P. M.)
Independence Day.
Final Examinations, first term (at regular class hours),
Physical Examinations for all new students.
First Term ends, 5:30 P. M.
Second Term begins, 7:30 A. M.
Intelligence Test for all new students.
Final Examinations, second term (at regular class hours).
Summer Convocation (Commencement), 2:00 P. M.
Summer Quarter ends, 6:00 P. M.

AUTUMN QUARTER

September 19 to 23
September 22 to October 2
September 26

September 27
October 1
November 11
November 24, 25, 26
December 19, 20, 21, 22
December 21
December 22

Entrance Examinations.
Physical Examinations for all new students.
Latest day for registration and payment of fees without penalty. (See page 24.)
Classes begin, 8:00 A. M.
Intelligence Test for all new students (Saturday A. M.)
Armistice Day. Ceremonial Exercises, 10 A. M. to 12 M.
Thanksgiving Recess.
Final Examinations.
Autumn Convocation (Commencement), 2:00 P. M.
Autumn Quarter ends, 6:00 P. M.

WINTER QUARTER

January 3 to 7
January 3

January 4
January 7
February 22
March 14, 15, 16, 17
March 16
March 17

1928

Physical Examinations for all new students.
Latest day for registration and payment of fees without penalty. (See page 24.)
Classes begin, 8:00 A. M.
Intelligence Test for all new students (Saturday A. M.)
University Day. No classes.
Final Examinations.
Winter Convocation (Commencement), 2:00 P. M.
Winter Quarter ends, 6:00 P. M.

SPRING QUARTER

March 26 to 30
March 26

March 27
March 31
May 23
May 30
June 6, 7, 8, 9
June 9
June 10
June 11
June 12
June 12

Physical Examinations for all new students.
Latest day for registration and payment of fees without penalty. (See page 24.)
Classes begin, 8:00 A. M.
Intelligence Test for all new students (Saturday A. M.)
Competitive Drill, Cadet Regiments.
Memorial Day. No classes.
Final Examinations.
Alumni Day.
Baccalaureate Sermon.
Class Day.
Spring Convocation (Commencement), 10:00 A. M.
Spring Quarter ends, 12:00 M.

ADMINISTRATION

BOARD OF TRUSTEES

LAWRENCE E. LAYBOURNE, Chairman.....	Springfield
EGBERT H. MACK, Vice-Chairman.....	Sandusky
JOHN KAISER	Marietta
ALMA WACKER PATERSON.....	Columbus
HERBERT S. ATKINSON.....	Columbus
JULIUS F. STONE.....	Columbus
HARRY A. CATON.....	Coshocton

ADMINISTRATIVE OFFICERS

President.....	GEORGE W. RIGHTMIRE
Office: Administration Building—UN-3148; Campus 312	
Residence: Ohio State University Campus—UN-3148; Campus 325	
Secretary of the Board of Trustees and Business Manager.....	CARL E. STEEB
Office: Administration Building—UN-3148; Campus 332	
Residence: 198 W. Eleventh Ave.—UN-4732	
Assistant to the President.....	GEORGE W. ECKELBERRY
Office: Administration Building—UN-3148; Campus 380	
Residence: 1545 Neil Ave.—UN-3499-J	
Registrar, University Editor, and Secretary of the University Faculty	EDITH D. COCKINS
Office: Administration Building—UN-3148; Campus 314	
Residence: 1348 Neil Ave.—UN-9635	
University Examiner.....	BLAND L. STRADLEY
Office: Administration Building—UN-3148; Campus 412	
Residence: 289 W. Seventh Ave.—UN-0033-M or Canal Winchester, No. 71	
Executive Clerk.....	KATHERINE A. VOGEL
Office: Administration Building—UN-3148; Campus 312	
Residence: 209 S. Monroe Ave.—FR-2356-W	
Comptroller.....	CHARLES A. KUNTZ
Office: Administration Building—UN-3148; Campus 332	
Residence: 265 Tulane Rd.—UN-2240-J	
Cashier.....	FLORIS D. HANE
Office: Administration Building—UN-3148; Campus 371	
Residence: 373 Thirteenth Ave.—WA-1054	
Acting Dean of Women.....	JESSICA FOSTER
Office: Pomerene Hall—UN-3148; Campus 480	
Residence: 1500 Michigan Ave.—UN-2058	
House Superintendent, Residence Halls.....	EMMA MCKINLEY PROUT
Office and Residence: Mack Hall—UN-3148; Campus 264	
Manager of Ohio Union.....	EDWARD S. DRAKE
Office and Residence: Ohio Union—UN-3148; Campus 359	
Hostess of Pomerene Hall.....	SOPHIE HARGIS BARKER
Office: 204 Pomerene Hall—UN-3148; Campus 226	
Residence: 1457 Neil Ave.—UN-8522-W	

COLLEGE OF EDUCATION

OFFICERS

Dean.....GEORGE F. ARPS
Office: Education Building—UN-3148; Campus 532
Residence: 216 East Lane Ave.—WA-1203

Secretary.....RAYMOND D. BENNETT
Office: Education Building—UN-3148; Campus 532
Residence: 68 North State St., Westerville—Westerville Ex. 155-W

BUREAU OF EDUCATIONAL RESEARCH

Director.....BURDETTE R. BUCKINGHAM
Office: Education Building—UN-3148; Campus 536
Residence: 195 West Eleventh Ave.—UN-9555

Division of Appointments

Director.....JOHN L. CLIFTON
Office: Education Building—UN-3148; Campus 535
Residence: 207 Fifteenth Ave.—UN-8016

FACULTY

1926-1927

GEORGE W. RIGHTMIRE, M.A., LL.D.	<i>President of the University</i>
GEORGE F. ARPS, A.M., Ph.D.	<i>Dean of the College of Education</i>
RAYMOND D. BENNETT, A.M.	<i>Secretary of the College of Education</i>
LEWIS F. ANDERSON, M.A., Ph.D.	<i>Professor of History of Education</i>
CHARLES L. ARNOLD, M.Sc.	<i>Professor of Mathematics</i>
ERNEST J. ASHBAUGH, A.M., Ph.D.,	<i>Professor of Education; Assistant</i>
<i>Director of Bureau of Educational Research</i>	
WILLIAM M. BARROWS, S.M., S.D.	<i>Professor of Zoology and Entomology</i>
EDWIN L. BECK, B.A.	<i>Professor of English</i>
BOYD H. BODE, Ph.D.	<i>Professor of Principles of Education</i>
CECIL E. BOORD, M.A., Ph.D.	<i>Professor of Chemistry</i>
ORVILLE G. BRIM, A.M., Ph.D.	<i>Professor of Principles of Education</i>
BURDETTE R. BUCKINGHAM, M.A., Ph.D.,	<i>Director of the Bureau of Edu-</i>
<i>cational Research; Professor of Education</i>	
HAROLD E. BURTT, A.M., Ph.D.	<i>Professor of Psychology</i>
LYDIA CLARK, B.S.	<i>Professor of Physical Education</i>
JOHN L. CLIFTON, B.S. in Edu.,	<i>Professor of Education; Chairman of</i>
<i>Appointment Office</i>	
JOSEPH V. DENNEY, A.M., Litt.D.	<i>Professor of English</i>
M. BLAKEMORE EVANS, Ph.D.	<i>Professor of German</i>
RALPH S. FANNING, M.S., M.Arch.	<i>Professor of Fine Arts</i>
HENRY H. GODDARD, M.A., Ph.D.	<i>Professor of Psychology</i>

HARRY G. GOOD, Ph.D.	<i>Professor of History of Education</i>
JAMES R. HOPKINS	<i>Professor of Fine Arts</i>
FREDERICK HORRIDGE, A.M., Ph.D.	<i>Professor of Vocational Education</i>
ROYAL D. HUGHES, A.M.	<i>Professor of Music</i>
CHARLES C. HUNTINGTON, M.A., Ph.D.	<i>Professor of Geography</i>
GEORGE W. KNIGHT, A.M., Ph.D.	<i>Professor of History</i>
ERWIN E. LEWIS, A.M., Ph.D.	<i>Professor of School Administration</i>
FREDERICK E. LUMLEY, M.A., B.D., Ph.D.	<i>Professor of Sociology</i>
CHARLES C. MCCrackEN, A.M., Ph.D.,	<i>Professor of School Administration</i>
FRANCIS N. MAXFIELD, Ph.D.	<i>Professor of Psychology</i>
JOHN H. NICHOLS, A.B., M.D.	<i>Professor of Physical Education</i>
EDWIN W. PAHLOW, A.M., Ph.D.	<i>Professor of Principles of Education</i>
WILLARD W. PATTY, A.M., Ph.D.	<i>Professor of Vocational Education</i>
SIDNEY L. PRESSEY, A.M., Ph.D.	<i>Professor of Psychology</i>
WILBUR H. SIEBERT, A.M.	<i>Research Professor in History</i>
†PAUL R. STEVENSON, A.M., Ph.D.,	<i>Professor of Education; Bureau of Educational Research</i>
LYNN W. ST. JOHN, Ph.B.	<i>Professor of Physical Education</i>
WILLIAM H. STONE, A.M., Ph.D.	<i>Professor of Industrial Education</i>
VIVIAN T. THAYER, M.A., Ph.D.	<i>Professor of Principles of Education</i>
HERBERT A. TOOPS, M.A., Ph.D.	<i>Professor of Psychology</i>
GEORGE R. TWISS, Ph.D.	<i>Professor of Principles of Education</i>
ALBERT P. WEISS, A.M., Ph.D.	<i>Professor of Psychology</i>
JOHN W. WILCE, B.A., M.D.	<i>Professor of Physical Education</i>
CARL WITKE, A.M., Ph.D.	<i>Professor of History</i>
ROSCOE H. ECKELBERRY, M.A.,	<i>Assistant Professor of History of Education</i>
ARCH O. HECK, M.Sc., Ph.D.,	<i>Assistant Professor of School Administration</i>
KATHARINE F. HERSEY, B.S.	<i>Assistant Professor of Physical Education</i>
FREDERICK C. LANDSITTEL, M.S. Ed.,	<i>Assistant Professor of Principles of Education</i>
GLADYS E. PALMER, B.A.	<i>Assistant Professor of Physical Education</i>
WARD G. REEDER, A.M., Ph.D.,	<i>Assistant Professor of School Administration</i>
SAMUEL RENSHAW, M.A., Ph.D.	<i>Assistant Professor of Psychology</i>
ALICE ROBINSON, B.S.	<i>Assistant Professor of Fine Arts</i>
A. SOPHIE ROGERS, M.A., Ph.D.	<i>Assistant Professor of Psychology</i>
ROBERT E. SMITH, M.A.	<i>Assistant Professor of Industrial Education</i>
J. RAY STINE, B.S.	<i>Assistant Professor of Vocational Education</i>

† Died, January 14, 1927.

WILLIAM E. WARNER, M.S.,	<i>Assistant Professor of Industrial Education</i>
EARL W. WILEY, M.A.	<i>Assistant Professor of English</i>
ROBERT D. WILLIAMS, A.M., Ph.D.	<i>Assistant Professor of Psychology</i>
WILLIAM R. WILSON, M.S., Ph.D.	<i>Assistant Professor of Psychology</i>
H. GORDON HULLFISH, M.A., Ph.D.,	<i>Instructor in Principles of Education</i>
ALMA KNAUBER	<i>Instructor in Fine Arts</i>
LUELLA C. PRESSEY, A.M., Ph.D.	<i>Instructor in Psychology</i>
CARL N. REXROAD, Ph.D.	<i>Instructor in Psychology</i>

THE OHIO STATE UNIVERSITY

The Ohio State University is situated within the corporate limits of the City of Columbus. It is supported by appropriations from the State and Federal governments. The campus and farm cover 1,100 acres. The campus proper contains 300 acres. The total value of land, buildings, and equipment is \$14,110,433.89.

ORGANIZATION

For convenience of administration the departments of the University are grouped into organizations called Colleges. The Ohio State University comprises ten Colleges and a Graduate School, each under the administration of a Dean and College Faculty, as follows:

Graduate School	College of Education
College of Agriculture	College of Engineering
College of Liberal Arts	College of Law
College of Commerce and Administration	College of Medicine
College of Dentistry	College of Pharmacy
	College of Veterinary Medicine

THE UNIVERSITY YEAR—FOUR QUARTERS

The University year is divided into four Quarters, each approximately twelve weeks in length. The Summer Quarter is further divided into two terms of approximately six weeks each. Complete courses that are so announced may be taken for either term or for the entire Quarter.

Nearly all of the elementary courses are five hours each week. A number of more advanced courses are two or three hours each week. The schedule is so arranged that a student who is registered in a College where the work is largely elective, may enter at the beginning of any Quarter and may, without hardship, be absent during any Quarter. For the most part students will take one Quarter each year as a vacation period—usually the Summer Quarter. By attendance in all four Quarters the duration of the time of residence for a degree may be shortened. Many persons, particularly teachers, avail themselves of the advantages offered in the Summer Quarter.

This *Bulletin* is devoted to the work of the College of Education for the Autumn, Winter, and Spring Quarters, 1927-1928. The announcements for the Summer Quarter are printed in the Summer Quarter Bulletin.

NOTE: Bulletins describing the work of the several Colleges may be obtained by addressing the University Examiner, Ohio State University, Columbus, and stating the College in which the writer is interested. (For list of bulletins, see cover page 3.)

SUMMER QUARTER

Courses offered by the professional departments of the College of Education during the Summer Quarter comprise nearly all the courses offered during the rest of the year and, in addition, a number of special Summer Quarter courses. Practically the entire staff of the professional departments offers instruction during the Summer Quarter. This regular staff is increased by a considerable number of visiting professors from other colleges and universities.

The Summer Quarter is divided into two terms of equal length. A student may register for either term or for the entire Quarter.

Students desiring information regarding the Summer Quarter should write for the Summer Quarter Bulletin.

COLLEGE OF EDUCATION

GENERAL INFORMATION

The office of the College of Education is located in the Education Building, on the northeast corner of the University Campus, at the Seventeenth Avenue and High Street entrance. The office is open from 8 a. m. to 12 m. and 1 to 5 p. m. except Saturday. On Saturday, the office hours are from 8 a. m. to 12 m.

The offices of the President of the University, the University Examiner, the Registrar, and the Bursar are located in the Administration Building.

SCOPE OF WORK OFFERED

This College was established by the University for the professional training of teachers, as provided in the school laws of this State, and is the teacher training agency within the University. It offers practical and theoretical courses for the training of high school and elementary school teachers and principals, of supervisors and teachers of special studies—music, physical education, fine arts, industrial arts, commercial subjects, etc., of school psychologists, of school nurses and teachers in schools of nursing, of superintendents of school systems, of county and district superintendents, and of instructors in normal schools. Its purpose is to assist the student in the acquirement of a knowledge of the branches which he wishes to teach, to develop a professional attitude toward education, and to develop skill in the use of efficient methods of teaching and of supervision.

The effort of the College is to bring into proper adjustment within the limits of a four-year course the academic training, the theoretical professional training, and the practical professional training necessary for effective teaching. The completion of the requirements in this College leads to the degree, Bachelor of Science in Education.

DEPARTMENTS

The College of Education includes work in the following departments offering general and professional training for teachers: Psychology, History of Education, School Administration, Principles and Practice of Education, Fine Arts, Music, Industrial Arts Education, Bureau of Educational Research, Vocational Education, Home Economics, Accounting, Agricultural Chemistry, Agricultural Engineering, Anatomy, Astronomy, Bacteriology, Bibliography, Botany, Business Organization, Chemistry, Chemical Engineering, Journalism, Classical Languages, Economics, Engineering Drawing, English, Geography, Geology, German, History, Industrial Engineering, Mathematics, Military Science and Tactics, Philosophy, Physical Education, Physics, Physiology, Political Science, Public Health, Romance Languages and Literatures, Rural Economics, Sociology, Zoology and Entomology.

THE BUREAU OF EDUCATIONAL RESEARCH

In recognition of the need for research work in the field of education, and in order to serve the public schools of the State whose research problems are especially numerous, the Bureau of Educational Research has been created in the College of Education. Under certain restrictions students enrolled in the various departments of the College of Education may work in the Bureau. Graduate students will find the facilities of the Bureau of great assistance. The Bureau maintains a service department and a textbook library. For further description of the Bureau see Departments of Instruction.

GRADUATE WORK

Students desiring to do graduate work in any of the departments of the College of Education will register in the Graduate School. Graduate courses leading to the degrees of M.A. and Ph.D. are offered by all the professional departments of the College of Education, comprising History of Education, Industrial Arts Education, Principles and Practice of Education (including Secondary, Elementary, and Rural Education), Psychology, School Administration, and Vocational Education. Graduate work is also offered by the Department of Fine Arts. For information regarding fees, registration, graduate degrees, etc., consult the Bulletin of the Graduate School.

All graduate students registered in "600" courses are required to complete a certain amount of work in addition to that required of undergraduates. This may consist of reading additional books on the subject, the presentation of reports, or of such other work as the instructor in charge of the course may deem wise.

GRADUATE CREDIT FOR SENIORS

A Senior whose full time is not required for the completion of the work for his baccalaureate degree may select certain courses for grad-

uate credit, but to do this the permission of the Graduate Council (Room 106, University Hall) must be obtained before registering for the courses.

RESIDENCE REQUIREMENT

A candidate for a degree must secure credit by regular class enrollment for the full work of three Quarters. This work must be in courses offered by the College recommending the degree, and must be secured while in residence at this University. During the last two Quarters of his residence the candidate must be enrolled in the College recommending the degree.

CANDIDACY FOR DEGREE

Immediately prior to the beginning of his Senior year every student is expected to register candidacy for his degree. To comply with this rule, a student should go to the College of Education Office, and fill out certain blank forms which will be furnished him. His candidacy will then be entered upon the records of the College and, if he requests it, he will be given a statement showing his standing with respect to credit hours and credit points, academic and professional subjects, major and minor, and all other requirements for the degree, Bachelor of Science in Education.

Students expecting to obtain degrees in June, 1928, are advised to go to the College office during the Spring Quarter 1926-1927 and register their candidacy. Students expecting to be candidates for degrees at the end of the Summer, Autumn, or Winter Quarters, should register their candidacy three quarters prior to the expected time of graduation. Then as soon as their grades for the current Quarter are recorded, statements, if requested, will be prepared and mailed to them. Students who are in doubt regarding their requirements are advised to secure such statements before registering for any of the work of the Senior year.

FINAL APPLICATION FOR DEGREE

In accordance with the rules and regulations of the University, a candidate for a degree must file a final application for his degree with the Secretary of the College at least two weeks prior to the opening of the Quarter that is to complete his course.

PROFESSIONAL SUBJECTS

Pursuant to the present School Code of Ohio the State Director of Education has designated the subjects which are accepted and treated as professional subjects in the training of teachers and which are required of all applicants for state provisional certificates.

The subjects are General Psychology, Educational Psychology, History of Education, Principles of Education, School Administration, Special Methods and Supervised Observation of Teaching and Practice Teaching.

TEACHERS' CERTIFICATES

All graduates of the College of Education are entitled, under the law, to a state provisional high school or elementary school teacher's certificate, without examination. This certificate, obtainable from the State Director of Education on the payment of a fee of one dollar, is valid in the State of Ohio for four years and the holder is eligible for appointment as teacher in any high school in the State, without further examination.

Graduates from this College in Home Economics, in Commercial Teacher Training, in Industrial Arts Education, in Fine Arts, in Music, in Vocational Education, and in Physical Education are also entitled, without further examination, to a state provisional special certificate valid for four years, in the appropriate one of the above lines. The holder of such special certificate is eligible for appointment as teacher or supervisor in the particular subject covered by the certificate.

The holder of any of these provisional certificates, furnishing evidence that he has completed at least twenty-four months of successful teaching during the four years, will be granted a state life certificate, of corresponding character, by the State Board of School Examiners.

Applications for these certificates may be obtained at the office of the Secretary of the College of Education. All applications for these certificates must be filed with the Secretary not later than two months previous to the time the degree is expected.

TEACHERS' PLACEMENT SERVICE

The Ohio State University maintains a Teachers' Placement Service for the convenience of the Superintendents and Boards of Education of the State. Graduates and graduate students of the Ohio State University are invited to enroll with the Appointment Office.

The Placement Service is under the direction of the Bureau of Educational Research. This service is rendered free of charge to the applicants. Graduates of experience who desire to better their locations are invited to communicate with the Appointment Office.

The Appointment Office has available such statistical information that advice and direction may be given in the matter of supply and demand for teachers in their various fields.

The service offered will be rendered on the exact basis of merit.

Superintendents and Boards of Education are invited to state their needs to the Appointment Office. Prompt attention to all calls is assured.

RESERVE OFFICERS' TRAINING CORPS

Under the law of Congress establishing the land grant colleges, it is required that instruction in Military Science and Tactics be included in the curricula. This instruction is given under the National Defense Act of June 3, 1916, as amended, establishing in the University the Reserve Officers' Training Corps. Under normal conditions twenty-two

commissioned officers, one warrant officer, and twenty-one enlisted men of the Regular Army are detailed by the War Department to take charge of this department. The Board of Trustees has directed that all male students, special and regular, except those registered in the Colleges of Dentistry, Law, and Medicine, and in the curriculum in Applied Optics, shall complete the two years of military requirement unless especially excused by the Department of Military Science and Tactics.

A student who has passed his twenty-fifth birthday before entering the University, or who will pass his twenty-fifth birthday on or before Commencement Day of the Spring Quarter following his matriculation in the University, may be excused from the Military Science requirement.

Self-support is not an adequate reason for excusing a student from the requirement in Military Science.

The Reserve Officers' Training Corps is organized as a Reinforced Brigade consisting of two regiments of Infantry, each composed of three battalions of four companies each; one regiment of Field Artillery, composed of two battalions of three batteries each; one additional battalion of Field Artillery, composed of three batteries; one battalion of Signal Corps, composed of two companies; a Band of one hundred and four pieces; and a Drum and Bugle Corps of thirty-six pieces. There is also a Medical Unit, a Dental Unit, and a Veterinary Unit. The total number of men under arms in all units averages about three thousand five hundred.

The course of instruction is both practical and theoretical, and divided into basic (first and second year) and advanced (third and fourth year) courses in Infantry, Field Artillery, Signal, Medical, Dental, and Veterinary. One-half of the time is devoted to theoretical work in the classroom and one-half of the time to practical work in the field. The basic courses are required of all Freshmen and Sophomores. The advanced courses are elective for Juniors and Seniors. Students completing the advanced course, when recommended by the Commandant and the President of the University, are granted commissions as Second Lieutenant in the Officers' Reserve Corps by appointment from the President of the United States. No student is eligible for the advanced course until he has completed satisfactorily the basic course or its equivalent.

The allowance made by the War Department is sufficient to pay for the cadet uniform. This University has adopted its own style of uniform. Students taking advanced courses in Military Science and Tactics also receive commutation of rations which this year has amounted to thirty cents a day, payable quarterly.

The appointment of cadet officers is made usually from those who have served in the Military Department at least two years and as a reward for excellence in their work.

Service in the Band and in the Drum and Bugle Corps is credited as fulfilling the military requirement, the positions being assigned after competitive try-out.

CREDIT FOR WORK IN RESERVE OFFICERS' TRAINING CORPS

For students who complete the curriculum of the Reserve Officers' Training Corps (as defined in General Orders No. 49 or as may be amended in the future by the War Department), the total number of hours required in the General Course for the degree of Bachelor of Science in Education is 172 (instead of 190) Quarter-credit hours, including the work in military science, physical education and hygiene. For the other curricula in the College of Education a like reduction of eighteen Quarter-credit hours in the requirements for the degree is authorized. The requirements in the professional subjects of the curricula must be fully met.

MEDALS AND PRIZES

THE RHODES SCHOLARSHIPS

Men who have completed their Sophomore year at the Ohio State University are eligible to compete for the Cecil Rhodes Scholarships, tenable for three years at Oxford University, England, with a stipend of four hundred pounds each year. These scholarships are awarded on the combined basis of character, scholarship, athletics, and leadership in extra-curriculum activities. Further information may be obtained from Professor Leigh Alexander, Oberlin College, Oberlin, Ohio; Secretary of the Rhodes Scholarship Committee of Selection for Ohio; or from the Dean of the College of Liberal Arts, Ohio State University.

THE WILLIAM EDWARD BINGHAM MEMORIAL MEDAL IN PHILOSOPHY

A medal is awarded annually to the undergraduate who presents the best essay on a philosophical topic. The conditions of the competition are fixed by the Philosophy Department. The medal, established in 1922, is a memorial to William Edward Bingham, a graduate student in philosophy in this institution from 1914 to 1916; he served in the United States Navy from April, 1917, to December, 1918, when he was accidentally drowned in the performance of his duties in the harbor of Tangier. The medal was executed by Mme. Anie Mouroux.

THE BRYAN PRIZE

Through the generosity of the late Hon. William J. Bryan an annual prize of \$60 is offered for the best essay on a subject involving the principles underlying the American government. Competition for this prize is open to all students in the University above the rank of Sophomore. For further information make inquiry of the Chairman of the Department of History.

THE VANDEWATER POETRY PRIZE

The Vandewater Poetry Prize was established Semicentennial Week by Mrs. Sarah O'Kane Raymund, '91, in honor of her grandfather. All students, graduate or undergraduate, *in residence* in the University are eligible to compete. No limit is set to the number of contributions that may be offered by one contestant. Announcement of the results is made in May; the award of \$25 is made to the successful contestant at Commencement and the winning poem is published in the University Monthly and in The Lantern. The judges are members of the English Faculty or others chosen by them. If in any year none of the work submitted is of sufficient merit, the donor provides that the income be spent by the Department of English in books of poetry or criticism for the University Library.

THE JOHN GORDON BATTELLE MILITARY PRIZE

The John Gordon Battelle Military Prize of fifteen dollars in gold is awarded annually to the cadet in the Military Department who submits the best solution of a map problem. The winner is entitled to wear the "Battelle Sword" during the succeeding year.

PROFESSIONAL FRATERNITIES AND SORORITIES

Chapters of four national professional fraternities and sororities for men and women majoring in the fields of education have been organized at this University. These are: Phi Delta Kappa, Alpha Psi Delta, Sigma Delta Sigma, and Pi Lambda Theta.

Phi Delta Kappa, national educational fraternity, is represented on the Campus by Sigma chapter. It exists for the purpose of promoting research, scholarship, and fellowship among men interested in education. Members are selected from men of high scholastic and professional standards who are majoring in the field of education.

Alpha Psi Delta, national psychological fraternity, is represented by a chapter here. Its members are Seniors or graduates of high scholarship, who are specializing in psychology. The meetings are largely devoted to round table discussions of psychological topics.

Sigma Delta Sigma, national professional educational fraternity for undergraduates, has established Beta chapter at Ohio State University. The purpose of this organization is to foster interest in education as a profession. Members are elected from men registered in the College of Education who meet the requirements of character and scholarship.

Pi Lambda Theta, national honorary educational sorority, is open to women students of junior, senior, and graduate standing. The scholarship requirement necessary for eligibility to membership is a 3.5 point-hour ratio in all academic work. The meetings are devoted to the broadening of the teacher's outlook and the intensifying of her interest in education.

THE UNIVERSITY LIBRARY

The University Library consists of all books owned by the University and numbers approximately 300,000 volumes. The main part of the Library, which is known as the General Library, is housed in the Library building. Very important divisions of the book collection are housed in other buildings. A catalog of the entire collection is maintained in the General Library.

Any person is privileged to use the University Library for reference, but books may be drawn only by officers and registered students of the University.

The General Library is open from 7:30 a. m. to 9:30 p. m., Monday to Friday; Saturday from 7:30 a. m. to 5:30 p. m. Vacation hours are from 8 a. m. to 5 p. m. Monday to Friday; Saturday from 8 a. m. to 12 m. The Library is closed on legal holidays.

The University Library is a depository for the official publications of the United States and has a remarkably full collection of these documents. It also receives thousands of documents from states, cities, and foreign countries. The exchanges of the Ohio Academy of Science, of the Ohio State University Scientific Association and of the Ohio Biological Survey are deposited in the University Library.

Of the department libraries eight are organized divisions of the University Library, in charge of library assistants.

The Law Library is in Page Hall. It includes all of the United States and state reports, the English reports, the Irish reports, the latest statutes, codes and session laws of the states, complete sets of all the important legal periodicals and an up-to-date collection of textbooks. It is especially well equipped for the study of Ohio law.

The Commerce Library includes a working collection of books for the undergraduate students of the College of Commerce. A large study room is maintained and also a reserve collection for their use is under the supervision of a trained librarian.

The Medical and Dental Library is in Hamilton Hall. This is a working collection of books, the historical books being shelved in the General Library.

The Orton Memorial Library, located in Orton Hall, is one of the most complete geological libraries in the country. In addition, the Ohio Geological Survey deposits its document exchanges with the Library. These two collections constitute a very complete set of official geological reports from the states, foreign governments, and scientific societies.

Collections of books on Architecture, Engineering Drawing, and Civil Engineering are located in a room in Brown Hall. This is known as the Brown Hall Library. The collection of plates, filed in this library, is especially valuable for the students in Architecture.

The Charles Cutler Sharp Library is located in the Chemistry Building. It contains not only the current periodicals and a large collection of dictionaries and handbooks on chemistry but also complete sets of all important journals dealing with subjects lying within the general field of chemistry and related sciences.

The Botany and Zoology Library is located in the Botany and Zoology Building. The "Index to General Botanical Literature," the "Index to Algological Literature," and the card index of the Concilium Bibliographicum are in this departmental library.

Collections of books on Ceramics, Mining, Metallurgy, and Mineralogy are located in Lord Hall, and are known as the Lord Hall Library.

Smaller collections are connected with many of the departments. The books relating to the Department of Fine Arts are collected in a special room known as the Art Reserve Room, where students have every facility for research.

The Library of the Ohio Archaeological and Historical Society, which is on the University Campus, is at the service of the officers and students of the University. This library is specializing in Ohio history and a very valuable collection is being built up.

ADMISSION

METHOD OF ADMISSION

The admission of students to the University is in charge of the Entrance Board, which determines the credits that shall be issued on all entrance examinations and certificates, and furnishes all desired information to applicants. Correspondence relating to admission should be addressed to the University Examiner, Ohio State University, Columbus.

ADMISSION TO COURSES LEADING TO A DEGREE

For complete entrance credit, an applicant for admission must be a graduate of a high school of the first grade or obtain credit by examination for fifteen entrance units.

For admission by examination or by certificate see the Bulletin of General Information.

DISTRIBUTION OF UNITS

As a basis for the most advantageous arrangement of a college course, applicants are advised to present the following units for admission: three in English; one in American history and civics; one in algebra; one in geometry; one in physics or chemistry; one in botany, zoology, or physiology; three in one foreign language; and four as choice may direct. If this work is not presented for entrance, the student's progress may be retarded, as he will be required to carry courses in the University to make up the deficiency and he may not be able to obtain a degree in the usual four years.

ENTRANCE CONDITIONS IN ALGEBRA AND GEOMETRY

A student who does not present for entrance one unit of algebra (through quadratics) and one unit of plane geometry will be admitted with conditions. Deficiencies in these subjects must be made up outside of university classes and the student must pass entrance examinations in them before entering upon his second year of residence.

SPECIAL STUDENTS OF MATURE YEARS

A person of mature years who is unable to meet the entrance requirements in all respects, under certain circumstances, may be permitted to matriculate for specified courses for which he can demonstrate adequate qualifications. An applicant under twenty-one years of age will not be considered. Inquiry concerning such admission should be addressed to the Entrance Board, and to receive consideration must reach the Board not less than ten days in advance of the opening of the Quarter.

REGISTRATION

REGISTRATION.—Under the Quarter plan each student will present his program of studies for only one Quarter at a time. Election cards for registration are obtained from the Registrar and are ready for distribution approximately two months prior to the opening of the Quarter. The exact date will be published in the Official Daily Bulletin and definite days will be announced during which every student in residence will be required to file his program of studies for the following Quarter. Persons who are not in residence may register in person or by mail at any time after the election cards are available for the following Quarter. Fees may be paid as soon as fee cards have been received by the student from the Registrar. Students who have registered sufficiently early usually receive fee cards approximately three weeks prior to the opening of the Quarter. *It is to the advantage of all students to register as early as possible*, since the size of many sections is limited and they are completely filled early during the registration period.

TIME OF REGISTRATION.—All undergraduate students are expected to register and pay their fees *before* the day designated in the University Calendar for classes to begin, and to report promptly to their classes on the first day that classes are scheduled. Class work begins the day following the last day announced for the payment of fees and all undergraduate students are expected to have completed registration and to report promptly to their classes.

Applicants presenting themselves after the opening of the Quarter can be admitted only for exceptional reasons and by action of the Executive Committee of the College. In general, a student who is permitted to enter after the close of the first week of a Quarter will be given a schedule diminished by one full course below the normal requirement for that student.

PROCEDURE FOR REGISTRATION

NEW STUDENTS.—Registration consists of the following steps in the order indicated. *Unless the student follows these instructions in every detail his registration in the University is not complete.*

(1) The student should secure

(a) An admission card from the University Examiner. (For necessary entrance credentials see Requirements for Admission, page 17.)

(b) An election card or study-program card from the Registrar's Office. This card must be approved by the Secretary of the College of Education and also by the Schedule Committee.

(c) A fee card from the Registrar's Office. On this card the student will be assessed all incidental, tuition, and laboratory fees. The fee card must be presented to the Bursar when the student pays his

fees. All fees must be paid before the student will be admitted to classes. *Students should not attempt to pay fees without a fee card as this will only delay registration.*

(d) A University directory card from the Registrar's Office. Each year upon entering the University every student is required to file in writing, in the Office of the Registrar, his local address and his home address on the blank provided for this purpose. He must report promptly to the Registrar's Office all subsequent changes in either address, as long as he is connected with the University.

(2) Every entering student must report for a Physical Examination upon the date of appointment mailed to the student by the University Examiner. Failure to keep the appointment involves a penalty of \$1.00.

Men should report to the Medical Examiner for Men, at the Men's Gymnasium.

Women should report to the Medical Examiner for Women, at Pomerene Hall.

(3) Every entering student must report to the Department of Psychology for an Intelligence Test, upon the date appointed. (See University Calendar, page 3.)

(4) Every woman student must register with the Dean of Women at her office in Pomerene Hall on Thursday, Friday, or on Saturday morning following the opening of the Quarter. A penalty will be assessed for failure to comply with this rule. (See page 25.)

STUDENTS IN CONTINUOUS RESIDENCE.—Students who have been in continuous residence in the University will proceed as follows. They should secure

(1) An election card or study program card, which must be approved by the Secretary of the College of Education and also by the Schedule Committee. This card may be obtained at the Registrar's Office.

(2) A fee card from the Registrar's Office, on which will be assessed all incidental, tuition, and laboratory fees. This card must be presented at the Bursar's Office and all fees paid before the student will be admitted to classes.

FORMER STUDENTS.—A former student who has not been in continuous residence during the preceding year or was not in residence during the preceding Quarter should go at once to the Dean or Secretary of the College for approval of his re-admission. He then follows the same procedure as a student in continuous residence.

STUDENTS TRANSFERRING TO ANOTHER COLLEGE IN THE UNIVERSITY.—A student who desires to transfer from this College to another college of this University must make his application for such transfer to the University Examiner. This transfer must be approved by the University Examiner before the student will be permitted to proceed with his registration in the college which he is proposing to enter.

FEES AND EXPENSES

GENERAL CHARGES

All University fees must be paid at the opening of each Quarter as a condition of admission to classes. All registration fees, including laboratory deposits, are assessed in the Office of the Registrar and are paid in the Office of the Bursar. Registration is not complete until all fees have been paid. No student will have any privileges in the classes or laboratories until all fees and deposits are paid.

Since all fees are due and payable as a part of the student's registration, no person should come to the University for registration without money sufficient to cover all of his fees and deposits.

MATRICULATION FEE

Every student upon his *first admission to the University* is required to pay a matriculation fee of \$10.00 (non-returnable). This fee is paid but once and is in addition to other University fees and entitles the student to the privileges of membership in the University.

NON-RESIDENT FEE

Every student who is not a legal resident of the State of Ohio is required to pay a non-resident fee of \$35.00 each Quarter (or \$20.00 each term of the Summer Quarter) of his residence in the University in addition to other University fees. The burden of registering under proper residence is placed upon the student. If there is any possible question of his right to legal residence the matter should be brought to the attention of the Registrar and passed upon, previous to registration or the payment of fees. Any student who registers improperly under this rule shall be required to pay not only the non-resident fee but shall be assessed a penalty of \$10.00. Students who do not pay this fee within thirty days after they have been notified that the non-resident fee has been assessed against them, will have their registration in the University cancelled.

No person shall be considered eligible to register in the University as a resident of the State of Ohio unless he has been a bona fide resident in the State twelve consecutive months next preceding the date of his original enrollment, and no person shall be considered to have gained or lost a residence in this State for the purpose of registering in the University by any conduct of his own while he is a student in the University; but persons whose legal residence follows that of other persons, as hereinafter provided, shall be considered to have gained or lost legal residence in this State for such purpose while students in the University according to changes of legal residence of such other persons, except that such legal residence shall not be considered to be so gained until

twelve months after such other person becomes a legal resident of this State.

The residence of minors shall follow that of the legal guardian, regardless of emancipation; but in case a resident of Ohio is appointed guardian of a non-resident minor, the legal residence of such minor for the purpose of this rule shall not be considered to be established in the State of Ohio until the expiration of twelve months after such appointment.

The residence of wives shall follow that of husbands.

Aliens who have taken out their first citizenship papers and who have been residents of Ohio for twelve months next preceding the date of their enrollment in the University, shall be regarded as eligible for registration as residents of Ohio.

INCIDENTAL FEE

The fee for all students is \$15.00 each Quarter.

THE OHIO UNION AND THE WOMEN'S UNION

A fee of \$1.00 each Quarter is paid by all students at registration. This entitles the student to all the privileges of the Unions consistent with the Constitutions and House Rules governing them.

GYMNASIUM FEE

Students taking gymnasium work are required to pay a gymnasium fee of \$1.00 each Quarter, which includes locker and towel service.

Women students who are enrolled in Swimming classes are required to pay a Natatorium deposit of \$1.00 each Quarter for the use of bathing suits.

LABORATORY DEPOSIT

Students are required to pay for all materials consumed in laboratory work. To meet the cost of these materials a deposit ranging from \$1.00 to \$20.00 for each course requiring such supplies is made at the time of registration before the student may enter the laboratory. All laboratory supplies are sold at the Laboratory Supply Store, Chemistry Building, to students, at cost to the University, and charged against the deposit. (See page 24.)

Instructors shall not permit students to engage in laboratory work unless first shown a receipt from the Bursar for deposits paid.

DEPOSIT FOR UNIFORM

Uniform is furnished Freshmen upon deposit of \$30.00 being made with the Bursar. This deposit is credited back to the student at the rate of \$4.00 per month for each month of the academic year during which the student actually attends classes in Military Science, until the whole deposit is so credited. Such credits are paid back to the student by the Bursar at the close of the Spring Quarter of each academic year. The

uniform is required to last two years, and if kept in good repair throughout the Freshman and Sophomore years an upkeep allowance of \$6.00 is paid to the student at the close of the Spring Quarter of the Sophomore year.

RETURN OF FEES

Return of Fees. (See page 24.)

TEXTBOOKS

Textbooks. Students should not purchase textbooks until they are advised by the instructors of their respective classes.

ROOM AND BOARD

Room and Board. (See Living Arrangements, page 28.)

GRADUATION FEE

A fee of \$5.00 to cover expense of graduation and diploma, is required of each person receiving one of the bachelor degrees from the University. This fee must be paid thirty days *before* the close of the Quarter in which the candidate expects to receive his degree. A penalty will be assessed for failure to comply with this rule. (See page 26.)

FEES FOR INSTRUCTORS, GRADUATE ASSISTANTS, FELLOWS, SCHOLARS, AND GRADUATE NURSES

The following persons shall be exempt from all fees except a diploma fee of \$10.00, and a matriculation fee of \$10.00 (unless the latter fee has already been paid as an undergraduate fee), and the exemption shall include laboratory supplies, *but this exemption shall not apply unless the registration is completed within two weeks after the opening of the Quarter:*

All members of the instructional force of the University, including Graduate Assistants, who are registered in the Graduate School of the University.

All persons appointed Fellows or Scholars by the Board of Trustees and registered in the Graduate School.

All instructors registered as students in any College of the University who have obtained their baccalaureate degree.

All graduate nurses giving instruction in the classes in Public Health Nursing.

All trained nurses employed in the Hospital of the College of Medicine.

CREDIT HOURS FOR INSTRUCTORS

The number of credit hours that may be taken by any graduate student who is not devoting his full time to the work (such as graduate assistants, part-time assistants, teachers in various schools and colleges,

etc.) will be decided in each individual case by the Dean of the Graduate School and the student's adviser.

REFUND ON FEES

Fees are not returnable except in case of sickness and for causes entirely beyond the control of the student. No part of the fees shall be returned for voluntary withdrawal of the student or enforced withdrawal thirty days after the registration. Students withdrawing under discipline forfeit all rights to the return of any part of the fees. No fees will be returned in case of withdrawal of students until thirty days have elapsed from the date of withdrawal.

On Tuition Fees. If a student is forced to withdraw from the University during a Quarter, he must first secure permission from his Dean. On presentation of this permission to the Bursar a refund will be made on tuition fees for students who withdraw during the first thirty days of the Quarter. Such refunds will not be made until thirty days after the date of withdrawal. In no case shall more than one-half of the fee be refunded.

On Laboratory Deposits. If a student is forced to withdraw from a laboratory course during a Quarter, he must first secure permission from his Dean.

No portion of a laboratory deposit of \$5.00 or less shall be returned, unless the course is officially dropped by the student within thirty days after the payment of the deposit.

On a laboratory deposit of \$6.00 or more the unexpended part of the deposit is returnable if called for on or before the close of the Spring Quarter of the fiscal year in which the deposit has been made.

An order for refund for the unexpended portion of the deposit may be obtained by applying at the Laboratory Supply Store, Chemistry Building. The unexpended part of the deposit will be paid at the Bursar's Office on presentation of the order for refund.

On Deposit for Uniform. (See page 22.)

SPECIAL FEES—PENALTIES

FEE FOR LATE PAYMENT OF FEES

All fees shall be paid by the close of the day preceding the first day of recitations. Failure to comply with this rule involves a penalty of \$5.00 for every succeeding day or fraction thereof, except in the case of a graduate student or a new student granted late registration by the Executive Committee.

A graduate student, or a new student granted late registration, shall pay his fees within twenty-four hours of the date of registration as certified by his Dean or Secretary, or the penalty will be imposed.

FEE FOR DUPLICATE FEE RECEIPT

A duplicate receipt for fees will be issued only upon presentation of satisfactory evidence of the loss or destruction of the original. A fee of \$1.00 will be charged for each duplicate receipt.

FEE FOR FAILURE TO REGISTER WITH THE DEAN OF WOMEN

Every woman student must register with the Dean of Women at her office in Pomerene Hall on Thursday, Friday, or on Saturday morning following the opening of the Quarter. Failure to comply with this rule involves a penalty of \$5.00 for every succeeding day or fraction thereof.

FEE FOR FAILURE TO KEEP APPOINTMENT FOR PHYSICAL EXAMINATION

A fee of \$1.00 will be assessed for failure to keep appointment for Physical Examination or for change in date of Physical Examination.

FEE FOR RE-REGISTRATION

When checks given for payment of fees are not paid on presentation at bank, registration will be cancelled and receipts given considered null and void. A penalty of \$5.00 will be charged for re-registration.

FEE FOR LATE FILING OF ELECTION CARDS

A student who fails to file his election card within the required time (see page 19) will be assessed a fee of \$1.00 for each day of delay, the maximum fee being \$5.00.

FEE FOR CHANGES IN APPROVED ELECTION CARDS OR SCHEDULES

No changes will be made in approved election cards or schedule assignments at the request of the student without (1) the consent of the Dean or Secretary, (2) the payment of \$1.00 for each change involved. Unless exceptional reasons can be given, all such changes must be made during the first three days of the Quarter.

FEE FOR SPECIAL EXAMINATIONS

A fee of \$2.00 will be charged for each special examination. A student who is unable to take an examination in accordance with the official schedule may obtain permission to take a special examination by complying with the following requirements in the order specified:

- (1) Obtain the written consent of the instructor concerned on the blank provided for the purpose.
- (2) Obtain the approval of the Dean of the College.
- (3) Obtain the endorsement of the Bursar after the payment of the special fee of \$2.00.

Unless there is an imperative reason to the contrary (such as prospective absence during the next Quarter) all special examinations shall be held after the date of the regular examination.

FEE FOR LATE PAYMENT OF GRADUATION FEE

A special graduation fee is required of each person receiving a diploma from the University. This fee must be paid thirty days *before* the close of the Quarter in which the candidate expects to receive his degree. Failure to comply with this rule involves a penalty of \$5.00.

COST OF A YEAR'S WORK

One of the most perplexing questions that confronts a prospective student is what the course is going to cost him a year.

The total cost of a year's work—three Quarters, will depend considerably upon the course pursued. In some courses, such as chemistry, considerable material is used by the student, and this must be paid for by him. The cost of books is an item which varies greatly with the course. In general, it may be said that the legitimate cost a year ranges from \$600 to \$650 exclusive of traveling expenses.

In order to furnish information, we have listed below an estimate of the average payments required by the University for the Freshman year and have estimated the cost for room and boarding at a safe price. These two items are sometimes reduced slightly where two students occupy the same room and where boarding clubs are economically managed. Fees to the University are paid at the beginning of each Quarter.

ESTIMATE OF EXPENSES

Matriculation Fee (non-returnable).....	\$ 10 00
Incidental Fee	45 00
Ohio Union	3 00
Gymnasium Fee	3 00
Deposits to cover laboratory materials and breakage..	30 00
Deposit to cover uniform.....	30 00
Books	50 00
Board—36 weeks at \$7.00 a week.....	252 00
Room rent at \$15.00 a month.....	135 00
General Expenses	100 00
Total	\$658 00

The item of *general expenses* is always subject to the personal habits of the individual, and varies according to the degree of economy exercised.

NOTE: In order to meet all the necessary expenses of registration, deposit for uniform, books, and other expenditures incident to securing a room and board, a student should come prepared to spend from \$125 to \$150 during the first ten days of a Quarter. After that period, his board and room rent will constitute the major part of his expenses.

ASSISTANTSHIPS AND SCHOLARSHIPS

GRADUATE ASSISTANTSHIPS OPEN TO GRADUATE STUDENTS

In order to encourage graduates of this University and of other similar and approved institutions, especially those in Ohio, to continue their studies and to pursue advanced work leading to the higher degrees, the University has established graduate assistantships in several departments. Graduate Assistants are elected for the year—four Quarters. During three Quarters, usually the Autumn, Winter and Spring, they must devote not to exceed one-half of their time to assisting in the work of the department in which they are pursuing their major work; during the remaining Quarter they are free to carry on their work at the University or elsewhere. Each Graduate Assistant must confer with the head of the department in which he is doing his major work concerning the Quarters that he must be in residence. A Graduate Assistant receives a stipend of \$500, payable in nine monthly installments, during the three Quarters in which he is rendering service. In addition all fees are remitted except a matriculation fee of \$10.00 if the Assistant has never attended the University and a diploma fee of \$10.00 if he receives a degree.

Students desiring to apply for Graduate Assistantships in any academic year must present their applications not later than March 1 of the preceding year. Application blanks may be obtained upon request by addressing the Dean of the Graduate School. The appointments to graduate assistantships are made annually in April.

SCHOLARSHIPS AND FELLOWSHIPS

In addition to the graduate assistantships, a limited number of scholarships and fellowships have also been established. The scholarships are open to students having a baccalaureate degree from an approved institution, and have a value of \$300 with exemption from all fees, except the matriculation fee and a diploma fee (\$10.00 each). The fellowships on the other hand, are open only to students who have at least the Master's degree or its equivalent, and have a value of \$500 with like exemption from all fees, except the matriculation fee and a diploma fee (\$10.00 each). Scholars and Fellows are selected on a basis of merit and must devote all their time to graduate work. They are elected for the year—four Quarters, but are required to be in residence only three Quarters, usually the Autumn, Winter, and Spring. Candidates for these positions must file their applications not later than March 1. Application blanks may be obtained by addressing the Dean of the Graduate School.

LIVING ARRANGEMENTS

The President of the University has the authority to supervise living arrangements of students not residents of the City of Columbus and to order the immediate withdrawal of any student from any boarding or lodging house in which the surroundings are undesirable.

ROOMS AND BOARD FOR MEN

The University does not possess any dormitory facilities for men. Furnished rooms can be obtained at prices varying from \$10.00 to \$15.00 a month, and the cost of the table board in the clubs and restaurants near the University is from \$6.50 to \$8.00 a week. Board can be secured at the Ohio Union at reasonable prices.

Board with furnished rooms can be obtained in private families within convenient distance from the University at rates varying around \$10.00 a week.

WOMEN STUDENTS

The Ohio State University is open to women upon the same conditions and by the same methods of registration offered to men. Every woman student must register with the Dean of Women at her office in Pomerene Hall on Thursday, Friday, or on Saturday morning following the opening of the Quarter.

NOTE: Failure to comply with this rule involves a penalty of \$5.00 for every succeeding day or fraction thereof.

LIVING ARRANGEMENTS FOR WOMEN

All living arrangements for women must be submitted to the Dean of Women for approval before consummation, and any change of housing must be made through her office.

DORMITORIES FOR WOMEN

Oxley Hall, the hall of residence for women, located at the southwest corner of the Campus on Neil Avenue, accommodates seventy-seven students. The hall contains suites, single and double rooms, with a students' sitting room, dining room, parlor, sun parlor, and laundry. The hall is governed by Student Government with the advice and supervision of the House Superintendent.

Mack Hall, the new dormitory for women, was opened October 1, 1923. It is joined to the south side of Oxley Hall by a cloister. This hall accommodates one hundred girls. It is modern in every respect, with running water in each room. It is under the same management as Oxley Hall.

Oxley Hall and Mack Hall are the only University-owned dormitories. For particulars, including rates, rules, etc., address Superintendent, Oxley Hall, Columbus, Ohio.

St. Hilda's Hall has been provided for the women students of the Episcopal Church, under the government of a Board of Trustees consisting of the Bishops and laymen of Southern Ohio and a local house committee of church women, the majority of whom are identified with the University.

For information address Superintendent of St. Hilda's Hall, 169 West Eleventh Avenue, Columbus, Ohio.

Presbyterian Hall provides a comfortable home for seventy-five girls. It consists of two houses connected by a new addition, which was built during the past summer. The hall is located near the Fifteenth Avenue entrance to the University Campus.

For information, address Superintendent of Presbyterian Hall, 50 Fifteenth Avenue, Columbus, Ohio.

Neil Hall, a residence for women, accommodates three hundred students. For information, address Superintendent of Neil Hall, 1634 Neil Avenue, Columbus, Ohio.

PRIVATE ROOMING HOUSES

In addition to the foregoing there are between fifty and sixty privately-owned rooming houses under the supervision of the Housing Department of the University. For details, see the General Information Bulletin.

THE HEALTH OF WOMEN STUDENTS

It is the purpose of the University to safeguard and promote the health of students in every reasonable way. The Physical Examinations required of all entering women and Sophomore women are used in advising the students as to defects which need treatment or correction, as to the type of Physical Education work adapted to the needs of each student; and, in special cases, as to the academic load and outside work. Students needing special attention are watched through the year by the Medical Adviser.

The Department of Physical Education offers to University women opportunities for the development of habits which should aid them in the preservation of sound health and physical fitness. Through the acquirement of health habits the individual is enabled to establish a high standard of efficiency while in the University and to build a foundation which should influence her life after leaving the University.

The Director of Physical Education, the Medical Adviser to Women, and members of the staff hold daily office hours for student conferences.

SELF-SUPPORT

FOR MEN

The University cannot promise work to students who expect to work their way through college. Many students find work in private families, in offices, and in various occupations, by means of which they defray a portion of their expenses. A person of ability and energy who is master of a trade, or who can do good work of any kind, can generally find employment, but prospective students are cautioned against depending wholly upon such uncertain sources of income.

Students should distinctly understand that where they attempt entire or partial self-support they should lengthen the term of study by applying for a part-time schedule. Students should not expect a special arrangement of class hours to accommodate their outside work. All outside work should be arranged with due regard to University obligations and classes which may occupy the Saturday morning hours as well as the late afternoon hours.

An employment bureau is maintained at the University Y. M. C. A., in Ohio Union, where the names of those seeking work and of those desiring workers are recorded. Very much depends, however, on the individual's power of initiative. Students should not come to the University expecting others to find places for them.

FOR WOMEN

The offices of the Dean of Women and the Student Y. W. C. A., located in Pomerene Hall, are glad to offer what assistance they can to young women to find suitable work. Few students are equal to the task of carrying a full University schedule successfully and at the same time earn sufficient money to meet their entire expenses. It is therefore important that students coming to the University for the first time be prepared to pay their expenses for the first Quarter. The opportunities for earning increase as students become acquainted with conditions and prove themselves able to carry both University and outside work. Young women must, however, recognize that competition is very keen as there are many more students than positions.

During the college year the Dean of Women and the Assistant Dean of Women hold office hours in Pomerene Hall every week day except Saturday afternoon. They welcome all women students who care to come whether for advice, information, or conference.

Students should distinctly understand that where they attempt entire or partial self-support they should lengthen the term of study. Students should not expect a special arrangement of class hours to accommodate their outside work. All outside work should be arranged with due regard to University obligations and classes which may occupy the Saturday morning hours as well as the late afternoon hours.

RULES AND REGULATIONS

STUDENT RESPONSIBILITY FOR COURSES

ADHERING TO A COURSE

Every student will be held responsible for the performance of all work assigned to him on his election card and for regular attendance upon his classes.

Every student, except a special student, shall be required to follow the prescribed order of courses in his curriculum. In case of temporary irregularity due to failure, or other causes, the student shall be required to select such courses in his curriculum as will make him regular as speedily as possible.

REPEATING A COURSE

A student who repeats a course for which he has received collegiate credit for work done at this University or elsewhere, must meet all the requirements of the course, including regular attendance and examinations. His final grade will be substituted for the grade already recorded but he will not receive any additional credit for the course.

CHANGING A COURSE

No course may be changed except by favorable action upon a formal written request presented by the student to the Secretary of the College in which he is enrolled.

DROPPING A COURSE

A student is not at liberty to cease attending a course without permission of his Dean, or change a class section without the authorization of the Registrar. Disregard of this rule will make the student liable to a failure in the course and to discipline by the Executive Committee of his College.

WITHDRAWAL FROM A COURSE

A student shall not be permitted to withdraw from a course during the last six weeks of the Quarter without receiving a failure in the course, unless he secures the joint permission of the Dean of the College and the instructor concerned.

WITHDRAWAL FROM THE UNIVERSITY

A student who desires to withdraw from the University must apply to the Dean of the College for permission to withdraw in good standing. *If the student leaves the University at any time during the Quarter without communicating with the Dean of his college, he will*

be marked as having failed in all his courses for the Quarter. If a personal interview is impossible, the Dean must be notified by mail. In order to retain his right to voluntary return, the reasons given for withdrawal must be satisfactory to the Dean, and must be so endorsed at the time the application is filed.

The written permission of the Dean shall be filed with the Registrar at once by the College Secretary that the proper entry may be made upon the University records.

If the permission to withdraw is withheld by the Dean and the student absents himself from the University notwithstanding, he will sacrifice his right to return and can obtain readmission only by petition to the Executive Committee of his College, as in the case of a student who has lost his standing by reason of failures.

No student may withdraw in good standing from the University within two weeks of the beginning of examinations unless he can show that his record to date is satisfactory.

When a student withdraws from the University during a Quarter his parent or guardian shall be notified of the fact by the Secretary of the College.

ABSENCES

OCCASIONAL ABSENCES

All occasional absences shall be adjusted with the instructors in whose classes they occur. Each department shall frame its own rules relative to occasional absences, but the Administrative Council shall have power to set aside an unreasonable rule. In no case shall absence be held to excuse a student from making up the work lost.

EXCESSIVE ABSENCE

If a student is absent from a course to such an extent as to imperil his credit, or is notably irregular in attendance, it shall be the duty of the instructor concerned to report the facts promptly to the Dean of the College in which the student is enrolled, and the Dean shall deal with the matter as a case of discipline.

ABSENCES BEFORE OR AFTER A MID-QUARTER VACATION

A student absent without excuse from a scheduled hour of work on a day immediately preceding or following a mid-quarter vacation (such as Thanksgiving, Washington's Birthday, Memorial Day, Independence Day) shall have a penalty of three hours (and 5.4 points) added to the requirements for his graduation. It shall be the duty of each instructor to report all such absences to the Dean of the College within five days following the vacation. For legitimate reason the Dean may excuse

such absences, and he shall certify to the Registrar the list of all persons upon whom the penalty is to be imposed. The Registrar shall enter the penalty upon the student's record card.

NOTE: The object of this rule is to prohibit the extending of a holiday into a longer vacation. If the holiday falls upon a Friday or Monday, Saturday will not be counted for those students who have no work on that day, nor will the fact that a student has scheduled work on Saturday release him from that work or authorize him to be absent the following Monday. Sunday shall not be counted either as the day before or the day after a holiday.

THE MARKING SYSTEM AND POINT SYSTEM

The grade marks given in the several Colleges of the University are: A—Excellent; B—Good; C—Average; D—Poor; E—Failed.

K (Credit) shall be used for work credited from other institutions and by the University Examiner only.

A value in "Points" is assigned to each of these grades as follows:

For each hour of A grade, 4 credit points shall be allowed

For each hour of B grade, 3 credit points shall be allowed

For each hour of C grade, 2 credit points shall be allowed

For each hour of D grade, 1 credit point shall be allowed

For each hour of K grade, 1.8 credit points shall be allowed

The grade of E receives no credit either in hours or points

The mark E cannot be removed by re-examination. (For removal of failures see page 34.)

POINTS REQUIRED FOR GRADUATION

The number of credit points required for graduation shall amount to not less than 1.8 times the number of credit hours undertaken by the student during his course as shown by his record card.

GRADUATE CREDIT FOR SENIORS

A Senior whose full time is not required in order to complete the work for his baccalaureate degree may select certain courses for graduate credit, but in order to do this the permission of the Graduate Council (Room 106, University Hall) must be obtained before registering for the courses.

LOW STANDING

PROBATION FOR LOW STANDING

At the end of each Quarter, the Dean of the College shall place any student upon probation: (1) Who fails to earn at least five credit points in excess of the number of credit hours for which he is scheduled; or (2) who fails to pass in at least two-thirds of his work. The period of pro-

bation shall extend through one Quarter of residence. No student shall be placed on probation more than twice under penalty of dismissal from the University.

The Executive Committee of the College shall have power to place a student on probation at any time when in their judgment his scholastic standing is unsatisfactory. In every case of probation the Dean of the College shall send a notice to the student and to his parent or guardian.

DISMISSAL FOR LOW STANDING

At the end of one Quarter of Probation, the Dean of the College shall dismiss from the University any student: (1) Who fails to earn at least five credit points in excess of the number of credit hours for which he is scheduled; or (2) who fails to pass in at least two-thirds of his work. In every case of dismissal the Dean shall notify both the student and his parent or guardian.

DISMISSAL FOR DEFICIENCY IN POINTS

A student who has been in attendance at the University for nine Quarters (in the College of Law for six Quarters) and who has not earned credit points equal to at least 1.7 times the number of hours undertaken during his residence and recorded on his record card shall be dismissed from the University by the Dean. By a two-thirds vote of the Executive Committee of the College he may be readmitted. A student entering the University from another institution will be rated as though his entire residence had been at this University.

DISMISSAL BY SPECIAL ACTION

In cases not covered by the foregoing rules, if the preparation, progress, or success of a student in his assigned work is deemed unsatisfactory, the Executive Committee of the College shall have power to dismiss him from the University.

REMOVAL OF FAILURES

FAILURE IN A REQUIRED COURSE

At his first opportunity a student must repeat in class a required course in which he has failed, unless the Executive Committee of the College authorizes a substitute course. In a course continuing through two or more Quarters, a failure in any given Quarter must be removed by successful repetition in class before the student will be admitted to the work of the succeeding Quarter.

FAILURE IN AN ELECTIVE COURSE

A failure in an elective course may be removed by repetition in class, and must be so removed before a student will be allowed to proceed

in a continued course. On petition, the Executive Committee of the College may excuse a student from repeating an elective course.

GRADUATION

POINTS REQUIRED FOR GRADUATION

The number of credit points required for graduation shall amount to not less than 1.8 times the number of credit hours undertaken by the student during his course as shown by his record card. (For Point System see page 33.)

GRADUATION FEE

A special graduation fee is required of each person receiving a diploma from the University. This fee must be paid thirty days before the close of the Quarter in which the candidate expects to receive his degree. Failure to comply with this rule involves a penalty of \$5.00.

COMMENCEMENT—CONVOCATION

A special Convocation or Commencement shall be scheduled at the close of each Quarter for the conferring of degrees upon candidates who have fulfilled all the requirements of their respective courses.

ATTENDANCE AT CONVOCATION EXERCISES

All candidates for degrees are required to be present at their graduation convocation unless excused by the President. Only those students who are to receive their degrees at a given convocation may appear in the class procession on that occasion or be seated with the graduating class.

GENERAL AND SPECIAL CURRICULA

Two general classes of curricula have been provided, both of which lead to the degree of Bachelor of Science in Education.

The first of these provides a wide range of electives and seeks to train superintendents, principals, and teachers in high schools, elementary schools, and rural schools. While the requirements are definite and fixed, the student may choose from a number of subjects the major branch in which he expects to qualify for teaching. Correlated with this will be minor subjects which he may teach.

The second class provides fixed courses, permitting comparatively little election, for the definite purpose of preparing teachers and supervisors in fine arts, music, home economics, manual training, and physical education; school nurses, teachers in schools of nursing, teachers and supervisors of commercial subjects, and teachers in part-time and continuation schools and classes.

REQUIRED SUBJECTS

Academic Subjects Required in All Curricula

(1) English—ten Quarter-credit hours.

English composition (English 401) five Quarter-credit hours and English literature (English 433, 441, 442, or 446) five Quarter-credit hours, must be taken by all students. Students who enter with less than three units in English will be assigned additional work in English to make up their deficiency.

(2) Biological Science—ten Quarter-credit hours.

A biological science shall mean botany, zoology, physiology, or anatomy. Ten Quarter-credit hours in one biological science must be taken in college, regardless of whether any biological science has been taken in high school.

NOTE: Students registered in the Fine Arts curriculum, or the Music curriculum, may take ten hours in Geology instead of ten hours in a biological science; if they take a biological science it must be Zoology.

(3) Social Science—ten Quarter-credit hours.

A social science shall include a course in the Department of Economics, Geography, History, Political Science, or Sociology. The student must take in college ten Quarter-credit hours in one of the social sciences.

NOTE: Students who enter without high school credit in American History must meet this requirement by taking ten Quarter-credit hours in American History.

(4) Psychology—five Quarter-credit hours.

Elementary Psychology 401, five Quarter-credit hours, must be taken by all students. When possible, it is recommended that Psychology 402 be taken in addition to Elementary Psychology 401.

(5) Foreign Language.

Students who have credit for three units of some one foreign language in high school are not required to take any foreign language in college. Students who enter with less than this amount must obtain college credit for either ten hours of a foreign language begun in high school, or fifteen hours of a foreign language not taken in high school.

(6) Physics or Chemistry.

A student who enters without one unit in physics or chemistry must take two Quarters work in one of these subjects in college during the first two years of his residence.

(7) Mathematics.

As indicated under admission (page 17) every student is expected to have secured credit in high school for algebra through quadratics and for plane geometry, and students who enter without this credit will be conditioned.

Professional Subjects Required in all Curricula

(1) Psychology 407, five Quarter-credit hours.

(2) History of Education 404 and 405, six Quarter-credit hours; in the curriculum for Elementary Teachers, History of Education 401, five Quarter-credit hours, instead of 404 and 405.

(3) Principles and Practice of Education: 401, five Quarter-credit hours, required of all students; 440, five Quarter-credit hours, for all students except those in the curriculum for Elementary Teachers; 410, three Quarter-credit hours, for those students majoring in English, history, foreign language, mathematics, science, and industrial arts education; in the curriculum for Elementary Teachers, 441, ten Quarter-credit hours, instead of 440, 430, five Quarter-credit hours, and 492, 403, and 494, three Quarter-credit hours each.

(4) School Administration 600 and 601, six Quarter-credit hours.

NOTE: Students in the Fine Arts, Music, and Physical Education curricula are not required to take School Administration 601.

(5) Survey of Education, one Quarter-credit hour.

NOTE: This course will not be required of students who enter the College of Education with junior standing.

(6) Industrial Arts Education 600, two Quarter-credit hours, is required of all men students, except those majoring in Physical Education.

(7) A course in the teaching of the major subject, not less than three Quarter-credit hours.

(8) All students except those pursuing one of the curricula in Fine Arts, Music, Home Economics, Physical Education, and Industrial Arts Education, must obtain additional professional work to make a total of fifty Quarter-credit hours in this group. Students not in any of these curricula must elect courses in the Departments of History of Education,

Principles and Practice of Education, Psychology, School Administration, and Vocational Education to bring the credit in this group to a total of fifty Quarter-credit hours.

For students in the Home Economics curriculum, the total requirement in this group is thirty-three Quarter-credit hours. For students in any of the following curricula: Fine Arts, Music, Industrial Arts Education, or Physical Education, the total required is forty Quarter-credit hours.

Students who are registered in the curriculum in Commercial Teacher Training or in the curriculum in Vocational Education, may count within this fifty hours of professional work, required courses in Vocational Education.

MAJOR AND MINOR SUBJECTS

(For Students in the General Curriculum)

MAJOR AND MINOR

In general, a major or a minor in the College of Education means a major or minor in *one subject*. Forty-five Quarter-credit hours is sufficient for such a major, or twenty-five hours for such a minor, except in the case of foreign language. If a student is majoring in a foreign language of which he had none in high school, he must secure fifty hours credit in that language; if minoring, thirty hours. If a student has high school credit for a year or more of the language in which he is majoring or minoring, then forty-five hours will be sufficient for a major and twenty-five hours for a minor.

There are some instances in which closely related subjects may be combined for a major or a minor. Combinations regularly permitted are given below. In all cases where combinations are made, fifty hours must be offered as a major, thirty hours as a minor. At least ten hours must be taken in any subject presented as part of a major.

- (1) History and not to exceed ten hours of Political Science or Sociology or Economics or Geography.
- (2) Botany and Zoology and Physiology (All three permitted for Major, but not more than two for Minor)
- (3) Geology and Geography for Major or Minor in Geography
- (4) Industrial Arts Education, Industrial Engineering, and Engineering Drawing, providing these courses are combined in accordance with the sequence of courses on page 55.
- (5) Industrial Arts Education, Industrial Engineering, Engineering Drawing, and Vocational Education, providing these courses are combined in accordance with the sequence of courses given on pages 55 and 56.
- (6) Physics and Chemistry
- (7) Physics and Mathematics
- (8) Sociology and Economics

Professional subjects may be chosen as minors but not as majors except in the case of Psychology, which may be used as a major by those preparing for psychological positions in the public schools. All psychology offered as a major must be exclusive of courses in Psychology offered as professional work. A student minoring in any professional subject must obtain twenty-five hours in that subject over and above the courses regularly required therein and over and above the fifty hours professional work required for a degree.

Combinations of two or more professional subjects—e.g., History of Education and Principles of Education, may not be offered as minors.

Courses in special methods in the various subjects—e.g., Principles of Education 715 (Teaching of English), Principles of Education 700 (Teaching of American History), etc., are credited under professional subjects and are not credited toward majors or minors.

Students majoring in Fine Arts, Music, Commercial Subjects, Home Economics, Education-Science Nursing, or Physical Education, or students preparing to teach in Elementary Schools or in Part-time and Continuation Schools and Classes, will follow the fixed curricula outlined on the succeeding pages of this *Bulletin*. Such students are not, in general, subject to the foregoing regulations with respect to major and minor subjects. The fixed curricula automatically provide for the major and minor requirements, unless the contrary is indicated by note.

Students majoring in subjects for which there are no fixed curricula will follow the GENERAL CURRICULUM. Some departments (e.g., Chemistry, English, German, etc.) have provided suggested sequences of courses for the guidance of students majoring in them. In some cases, minor sequences have also been outlined. These major and minor sequences will be found on pages 55 to 62.

Not later than the beginning of the Junior year, each student must file in the office of the Secretary of the College, a statement declaring his major and minor subjects.

Elective Courses

The word "elective" is generally used in two senses. (1) It is used to designate those courses which are not taken to meet any specific requirement. Unless a student's high school preparation has been deficient, he usually has opportunity to include a number of such courses in the total of 190 Quarter-credit hours required for the degree and thereby to diversify and enrich his education in the direction of his personal interests. (2) When the word appears in a given Quarter of an outlined curriculum it means simply that out of the fifteen or more hours which the student will normally be carrying in that Quarter, a certain number are to be used in some way not prescribed in advance. One student may use these hours toward meeting his foreign language requirement, another may use them in taking some course which falls within his major or minor field, and still another may take a course which does not meet any specific requirement—i.e., which is elective in the first sense of the word as above defined.

GENERAL CURRICULUM

FIRST YEAR

Autumn Quarter		Winter Quarter		Spring Quarter	
Biological Science	5	Biological Science	5	Psychology	(401) 5
*Social Science	5	Social Science	5	English	(401) 5
Foreign Language		Foreign Language		Foreign Language	
or Elective	5	or Elective	5	or Elective	5
Survey of Education	1	Military Science	1	Military Science	1
Military Science	1	Physical Education	1	Hygiene	(400) 1
Physical Education	1			Physical Education	1

SECOND YEAR

Psychology	(407) 5	English (433, 441, 442, or 446)	5	Prin. of Education	(401) 5
Military Science	1			Military Science	1
Physical Edu. (Women)	1	Military Science	1	Physical Edu. (Women)	1
Elective	10	Physical Edu. (Women)	1	Elective	10
		Elective	10		

THIRD YEAR

History of Education	(404) 3	History of Education	(405) 3	Special Methods	3
Industrial Arts Edu. (Men)	(600) 3	Elective	12	Elective	12
Elective	9 or 11				

FOURTH YEAR

School Admin.	(600) 3	School Admin.	(601) 3	Prin. of Education	(440) 5
Elective	12	Elective	12	Prin. of Education	(410) 3
				Elective	9

From the "Elective" hours the student must offer a major consisting of 45 to 50 Quarter-credit hours in one field, and a minor consisting of 25 to 30 Quarter-credit hours in another field, and must also provide for any general academic or professional requirements (such as Physics or Chemistry, for those who have not had one of these subjects in high school), whose place is not specifically indicated in the outline of the curriculum. Students should choose for their major and minor work those subjects which they expect to teach.

In cases where the best interests of the student require it, courses may be taken in Quarters other than those specified in the above curriculum.

REQUIREMENTS FOR A DEGREE

Upon the satisfactory completion of one hundred and ninety Quarter-credit hours, under the restrictions and requirements prescribed above, the student will be recommended for the degree of Bachelor of Science in Education.

* A social science shall include a course in American History, Economics, European History, Geography, Political Science, or Sociology. In case the student desires to satisfy this requirement by electing work in Economics, Sociology, or Political Science he will have to postpone it until the second year.

FINE ARTS

FIRST YEAR

Autumn Quarter		Winter Quarter		Spring Quarter	
Zoology or Geology	(401) 5	Zoology or Geology	(402) 5	Psychology	(401) 5
History	(401) 5	History	(402) 5	English	(401) 5
Fine Arts	(421) 5	Fine Arts	(423) 5	Fine Arts (431) or (461)	5
Survey of Education	1	Military Science	1	Military Science	1
Military Science	1	Physical Education	1	Hygiene	(400) 1
Physical Education	1			Physical Education	1

SECOND YEAR

Fine Arts	(451) 5	Fine Arts	(452) 5	Fine Arts	(453) 5
Psychology	(407) 5	English (433, 441, 442,		Fine Arts (431) or (461)	5
Elective	5	or 446)		5 Elective	5
Military Science	1	Elective	5	Military Science	1
Physical Edu. (Women)	1	Military Science	1	Physical Edu. (Women)	1
		Physical Edu. (Women)	1		

THIRD YEAR

History of Education	(404) 3	History of Education	(405) 3	Fine Arts (441) or (442)	5
Fine Arts	(424) 5	Fine Arts	(425) 5	Prin. of Education	(401) 5
Prin. of Education	(750) 3	Prin. of Education	(751) 3	Elective	5
Teaching of Mechanical		Teaching of Mechanical			
Drawing		Drawing			
Elective	5	Elective	5		

FOURTH YEAR

School Admin.	(600) 3	Elective	15	Prin. of Education	(440) 5
Fine Arts	(471) 5			Elective	10
Fine Arts (444) or (443)	5				
Elective	3				

NOTE: The student must offer a minor consisting of 25 to 30 Quarter-credit hours.

REQUIREMENTS FOR A DEGREE

Upon the satisfactory completion of one hundred and ninety Quarter-credit hours, under the restrictions and requirements prescribed above, the student will be recommended for the degree of Bachelor of Science in Education.

HOME ECONOMICS

FIRST YEAR

Autumn Quarter		Winter Quarter		Spring Quarter	
Fine Arts	(426) 5	Home Economics	(401) 5	Home Economics	(402) 5
Chemistry	(401 or 411) 5	Chemistry	(402 or 412) 5	English	(401) 5
†Foreign Language		†Foreign Language		††Foreign Language	
or Elective	5	or Elective	5	or Elective	5
Survey of Education	1	Physical Education	(422) 1	Hygiene	(400) 1
Physical Education	(421) 1			Physical Education	(423) 1

† Students who have credit for three units of some one foreign language in high school are not required to take any foreign language in college. Students who enter with less than this amount must obtain college credit for either ten hours of a foreign language begun in high school, or fifteen hours of a foreign language not taken in high school.

†† Students who do not take a third Quarter of foreign language should elect Psychology (401) in the Spring Quarter of the first year rather than in the Autumn Quarter of the second year.

SECOND YEAR

Autumn Quarter		Winter Quarter		Spring Quarter	
Psychology	(401) 5	Agricultural Engr.	(406) 5	Psychology	(407) 5
Agricultural Chem.	(402) 5	Agricultural Chem.	(403) 5	Home Economics	(403) 5
Home Economics	(411) 5	Home Economics	(412) 5	Fine Arts	(436) 3
Physical Education	(425) 1	Physical Education	(426) 1	Engr. Drawing	(437) 2
				Physical Education	(427) 1

THIRD YEAR

History of Education	(404) 3	History of Education	(405) 3	Prin. of Education	(401) 5
Engr. Drawing	(438) 3	Economics	(407) 5	Home Economics	(511) 3
Physiology	(408) 5	Physiology	(404) 5	English (433, 441, 442,	
Bacteriology	(607) 5	Elective	2	or 446)	5
				Elective	3

FOURTH YEAR

School Admin.	(600) 3	School Admin.	(601) 3	*Prin. of Education	(440) 5
Sociology	(401) 5	Home Economics	(611) 5	Elective	10
Home Economics	(641) 5	Elective	7		
Public Health	(407) 2				

REQUIREMENTS FOR A DEGREE

Upon the satisfactory completion of one hundred and ninety Quarter-credit hours, under the restrictions and requirements prescribed above, the student will be recommended for the degree of Bachelor of Science in Education.

MUSIC

FIRST YEAR

Autumn Quarter		Winter Quarter		Spring Quarter	
Zoology or Geology	(401) 5	Zoology or Geology	(402) 5	Psychology	(401) 5
History	(401) 5	History	(402) 5	English	(401) 5
Music	(430) 4	Music	(431) 4	Music	(432) 4
Survey of Education	1	Military Science	1	Military Science	1
Military Science	1	Physical Education	1	Hygiene	(400) 1
Physical Education	1			Physical Education	1

SECOND YEAR

Music	(440) 4	Music	(433) 3	Music	(441) 4
Music	(432) 3	English (433, 441, 442, or		Prin. of Education	(401) 5
Psychology	(407) 5	446)	5	Military Science	1
Military Science	1	Military Science	1	Physical Edu. (Women)	1
Physical Edu. (Women)	1	Physical Edu. (Women)	1	Elective	6
Elective	2	Elective	8		

* Students registering for this course should plan their schedules so as to meet in conference at the same hour as Home Economics 642. For this purpose consult Home Economics Time Schedule.

CURRICULA

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THIRD YEAR

Autumn Quarter		Winter Quarter		Spring Quarter	
History of Education	(404) 3	History of Education	(405) 3	Music	(443) 5
Music	(601) 4	Music	(602) 4	Music	(603) 4
Music	(470) 4	Music	(471) 4	Elective	7
Music	(442) 5	Elective	5		

FOURTH YEAR

Music	(620) 3	Music	(621) 3	Music	(611) 4
Music	(610) 4	Elective	12	Prin. of Education	(440) 5
School Admin.	(600) 3			Elective	7
Elective	6				

NOTE: All electives should be chosen with the advice of the department. Where possible, students are urged to elect courses in Fine Arts, Aesthetics, and Modern Languages. The student must also offer a minor consisting of 25 or 30 Quarter-credit hours. Every student majoring or minoring in music will be examined by a committee of the music faculty to determine whether his attainments are sufficient to meet the usual needs of one engaged in supervision of the subject.

REQUIREMENTS FOR A DEGREE

Upon the satisfactory completion of one hundred and ninety Quarter-credit hours, under the restrictions and requirements prescribed above, the student will be recommended for the degree of Bachelor of Science in Education.

COMMERCIAL AND JOURNALISM TEACHER TRAINING CURRICULA

Students who expect to enter the field of journalism or to engage in personnel or educational work in industry or in business should register in the College of Commerce and Administration.

The following curricula are designed for the preparation, respectively, of teachers of accounting, commercial geography, office practice, retail selling, and journalism. With the exception of Journalism, the first two years are the same for all curricula.

FIRST YEAR

Autumn Quarter		Winter Quarter		Spring Quarter	
English	(401) 5	Geography	(401) 5	Geography	(403) 5
Language, Science, or		Language, Science, or		American or European	
Elective	5	Elective	5	History	5
Survey of Education	1	Vocational Education	(501) 1	Military Science	1
Military Science	1	Military Science	1	Physical Education	1
Physical Education	1	Physical Education	1	Hygiene	(400) 1
Elective	3	Elective	3	Elective	3

COLLEGE OF EDUCATION

SECOND YEAR

Autumn Quarter		Winter Quarter		Spring Quarter	
American or European		Economics	(401) 5	Economics	(402) 5
History	5	Accounting	(401) 5	Accounting	(402) 5
*English (Literature)	5	Military Science	1	Military Science	1
Military Science	1	Physical Edu. (Women)	1	Physical Edu. (Women)	1
Physical Edu. (Women)	1	Elective	6	Elective	6
Elective	6				

* Must be taken from one of the following English courses: 433, 441, 442, 446.

MAJOR IN ACCOUNTING *

THIRD YEAR

Autumn Quarter		Winter Quarter		Spring Quarter	
Accounting	(601) 5	Accounting	(602) 5	Bus. Organization	(627) 3
Bus. Organization	(621) 3	Bus. Organization	(625) 3	Prin. of Education	(485) 3
Psychology	(401) 5	Psychology	(402) 5	Psychology	(407) 5
Prin. of Education	(401) 5	Elective	3	Vocational Education	(507) 3
				†Elective	3

FOURTH YEAR

Accounting	(603) 3	Accounting	(604) 3	Accounting	(616) 3
Prin. of Education	(410) 3	Economics	(610) 5	Vocational Education	(506) 3
Prin. of Education	(440) 5	School Admin.	(600) 3	Vocational Education	(606) 3
History of Education	(404) 3	History of Education	(405) 3	Elective	6

MINOR IN ACCOUNTING

Accounting	(401) 5	Accounting	(601) 5
Accounting	(402) 5	†Elective	10

* Students expecting to enter the field of accounting should enroll in the College of Commerce and Administration.

† Must be advanced courses in Accounting, Business Organization, Economics, or Geography.

MAJOR IN COMMERCIAL GEOGRAPHY *

THIRD YEAR

Autumn Quarter		Winter Quarter		Spring Quarter	
Geography	(632) 3	Geography	(633) 3	Geography	(631) 3
Prin. of Education	(401) 5	Geography	(422) 3	Prin. of Education	(485) 3
Psychology	(401) 5	Psychology	(402) 5	Vocational Education	(507) 3
Elective	(401) 3	Elective	5	Psychology	(407) 5
				Elective	3

FOURTH YEAR

Geography	(604) 2	Geography	(634) 3	Geography	(603) 4
Geography	(641) 2	School Admin.	(600) 3	Geography	(606) 2
History of Education	(404) 3	History of Education	(405) 3	Vocational Education	(506) 3
Prin. of Education	(410) 3	Elective	5	Vocational Education	(606) 3
Prin. of Education	(440) 5			Elective	3

* Students expecting to engage in geographical work in industry, in business, or in government should enroll in the College of Commerce and Administration.

MINOR IN COMMERCIAL GEOGRAPHY

Geography	(401) 5	Geography	(631) 3
Geography	(403) 5	† Elective	9
Geography	(422) 3		

† Must be advanced courses in Geography from the "600" group.

MAJOR IN OFFICE PRACTICE

THIRD YEAR

Autumn Quarter		Winter Quarter		Spring Quarter	
History of Education	(404) 3	History of Education	(405) 3	Prin. of Education	(485) 3
Prin. of Education	(401) 5	Bus. Organization	(640) 3	Vocational Education	(607) 3
Bus. Organization	(621) 3	English	(405) 5	Bus. Organization	(700) 5
Psychology	(401) 5	Psychology	(402) 5	Psychology	(407) 5

FOURTH YEAR

Prin. of Education	(410) 3	School Admin.	(600) 3	Vocational Education	(506) 2
Prin. of Education	(440) 5	Bus. Organization	(691) 3	Bus. Organization	(625) 3
Bus. Organization	(604) 3	Bus. Organization	(605) 3	Vocational Education	(606) 3
Elective	4	Elective	6	Elective	8

MINOR IN OFFICE PRACTICE

Business Organization	(621) 3	Business Organization	(691) 3
Business Organization	(604) 3	Business Organization	(640) 3
Business Organization	(605) 3	* Elective	10

* Must be in Accounting or in Business Organization, or in both, and in the "600" group.

MAJOR IN RETAIL SELLING

THIRD YEAR

Bus. Organization	(621) 3	Bus. Organization	(712) 3	Bus. Organization	(716) 3
Bus. Organization	(700) 5	Bus. Organization	(623) 3	Prin. of Education	(485) 3
Psychology	(401) 5	Psychology	(402) 5	Psychology	(407) 5
Prin. of Education	(401) 5	Elective	4	* Elective	3

FOURTH YEAR

History of Education	(404) 3	History of Education	(405) 3	Bus. Organization	(705) 3
Prin. of Education	(410) 3	Bus. Organization	(702) 3	Vocational Education	(506) 2
Prin. of Education	(440) 5	School Admin.	(600) 3	Vocational Education	(507) 3
Vocational Education	(505) 2	Elective	6	Vocational Education	(606) 3
Elective	3			Elective	4

MINOR IN RETAIL SELLING

Business Organization	(700) 5	Accounting	(623) 3
Business Organization	(712) 3	* Elective	10
Business Organization	(705) 4		

* Must be courses in Accounting, Geography, or Business Organization, and in the "600" group.

REQUIREMENTS FOR A DEGREE

Upon the satisfactory completion of one hundred and ninety Quarter-credit hours, under the restrictions and requirements prescribed above, the student will be recommended for the degree of Bachelor of Science in Education.

CURRICULUM FOR TEACHERS OF JOURNALISM*

FIRST YEAR

Autumn Quarter		Winter Quarter		Spring Quarter	
English	(401) 5	English	(433) 5	English	5
Language	5	Language	5	Language	5
American History	5	American History	5	Military Science	1
Survey of Education	1	Vocational Education (501)	1	Physical Education	1
Military Science	1	Military Science	1	Hygiene	1
Physical Education	1	Physical Education	1	Elective	3

SECOND YEAR

Journalism	(401) 5	Journalism	(402) 5	Journalism	(501) 3
History	(401) 5	Military Science	1	Vocational Education (507)	3
English (Literature)	5	Physical Education	1	Military Science	1
Military Science	1	†Elective	10	Physical Education	1
Physical Education	1			†Elective	8

THIRD YEAR

Journalism	(518) 3	Journalism	(513) 3	Prin. of Education	(485) 3
Prin. of Education	(401) 5	Journalism	(502) 3	Psychology	(407) 5
Psychology	(401) 5	Psychology	(402) 5	Elective	7
Elective	3	Elective	4		

FOURTH YEAR

History of Education	(404) 3	History of Education	(405) 3	Journalism	(621) 3
Prin. of Education	(410) 3	School Admin.	(600) 3	Vocational Education (506)	2
Prin. of Education	(440) 5	Journalism	(622) 3	Vocational Education (606)	3
Elective	4	Journalism	(517) 5	Elective	7
		Elective	3		

MINOR IN JOURNALISM

Journalism	(401) 5	Journalism	(502) 3
Journalism	(402) 5	†Elective	9
Journalism	(501) 3		

* Students expecting to enter the field of journalism should enroll in the School of Journalism.

† At some time during his course the student must take 10 hours each of Economics, Political Science, and Sociology.

‡ Must be advanced courses in Journalism from the "600" group.

REQUIREMENTS FOR A DEGREE

Upon the satisfactory completion of one hundred and ninety Quarter-credit hours, under the restrictions and requirements prescribed above, the student will be recommended for the degree of Bachelor of Science in Education.

PERSONNEL ORGANIZATION AND MANAGEMENT

FIRST YEAR

I. Fixed Requirements, see the Commerce Bulletin.

II. Additional Requirements, as stated under additional requirements in the Commerce Bulletin, sections (a), (b), (c), and (d).

Geography 401 and 403—10 hours (Required)

Psychology 401 and 402—10 hours (Required)

SECOND YEAR

Physical Edu. (Women)	(425-426-427) 3	Economics	(401-402) 10
Military Science (Men)	3	Sociology	(410) or (401-402) 5 or 10
Accounting	(401-402) 10	Psychology	(407) 5

THIRD YEAR

†* In the following list of requirements for the third and fourth years, those courses marked with a dagger are required of all students specializing in Mercantile Personnel Management and those marked with an asterisk are required of all students specializing in Industrial Personnel Management. All remaining courses are required of all students in Personnel Management.

Autumn Quarter		Winter Quarter		Spring Quarter	
Bus. Organization	(621) 3	Economics	(422) 3	Bus. Organization	(625) 3
Bus. Organization	(700) 5	Bus. Organization	(680) 5	Bus. Organization	(650) 5
Psychology	(613) 3	Psychology	(640) 3	Prin. of Education	(401) 5
†Accounting	(623) 3	†Bus. Organization	(702) 3	†Bus. Organization	(712) 3

NOTE: Business Organization 684, Field Work in Industrial Management, 3 to 6 hours, must be completed before the student is eligible to take Business Organization 685, 686, or 687.

PREFERRED ELECTIVES

Business Organization	(640) 3	Economics	(610) 5
Economics	(643) 4	Economics	(618) 5
Accounting	(661) 5	Psychology	(615) 3
Geography	(608) 4	Psychology	(644) 3

Summer Quarter

**Business Organization (725) 3-6
Field Work in Marketing

** Must be completed before the student is eligible for Business Organization 705 and Principles of Education 485, or Spring Quarter of the Senior year.

COLLEGE OF EDUCATION

FOURTH YEAR

Autumn Quarter		Winter Quarter		Spring Quarter	
Economics	(637) 3	Economics	(638) 3	Economics	(639) 3
Psychology	(637) 3	Bus. Organization	(620) 1	†Bus. Organization	(604) 3
Bus. Organization	(686) 3	Psychology	(639) 3	†Bus. Organization	(705) 3
Vocational Education	(502) 2	Public Health	(603) 3	*Bus. Organization	(687) 3
*Sociology	(665) 3	†Bus. Organization	(716) 3	*Prin. of Education	(485) 3
Elective	3	*Bus. Organization	(685) 3		

PREFERRED ELECTIVES

Psychology	(638) 3	Sociology	(605) 4
Sociology	(645) 4	Sociology	(607) 4
Sociology	(646) 4	Economics	(656) 3
Sociology	(615) 5	Economics	(657) 3
Business Organization	(692) 3	Business Organization	(709) 3
Business Organization	(727-728-729) 1-3		

REQUIREMENTS FOR A DEGREE

Upon the satisfactory completion of one hundred and ninety Quarter-credit hours, under the restrictions and requirements prescribed above, the student will be recommended for the degree of Bachelor of Science in Education.

INDUSTRIAL ARTS EDUCATION

This curriculum is designed to prepare men and women for positions as teachers and supervisors in the varied phases of Industrial Arts Education, in elementary, junior, or senior high schools; or in the many similar positions now offered in industry. Schedules of students taking Industrial Arts Education as a major or minor must be approved by this department each quarter.

FIRST YEAR

Autumn Quarter		Winter Quarter		Spring Quarter	
Engineering Drawing	(401) 4	Engineering Drawing	(436) 5	Psychology	(401) 5
Botany or Zoology	(401) 5	Botany or Zoology	(402) 5	English	(401) 5
Language or Elective	5	Language or Elective	5	Language or Elective	5
Survey of Education	1	Military Science	1	Military Science	1
Hygiene	1	Physical Education	1	Physical Education	1
Military Science	1				
Physical Education	1				

SECOND YEAR

*Industrial Arts Edu.	(400) 5	Industrial Arts Edu.	(410) 3	Industrial Arts Edu.	(412) 3
English	(438) 5	Industrial Engr.	(416) 3	Industrial Engr.	(419) 3
Physics	(401) 5	Psychology	(407) 5	Prin. of Education	(401) 5
or	5	Physics	(402) 5	American History or	
Elective		or	5	Economics	5
Military Science	1	Elective		Military Science	1
		Military Science	1		

* Given in Summer Quarter only, 1927.

THIRD YEAR

Autumn Quarter		Winter Quarter		Spring Quarter	
Industrial Arts Edu.	(414) 3	Industrial Engr.	(411) 3	Industrial Arts Edu.	(416) 3
Industrial Arts Edu.	(450) 3	Industrial Arts Edu.	(452) 3	Psychology	(638) 3
American History or		† Industrial Arts Edu.	(600) 3	History of Education	(405) 3
Economics	5	History of Education	(607) 2	Industrial Engr.	(405) 3
Elective	6	Elective	6	Elective	5

FOURTH YEAR

Industrial Arts Edu.	(606) 3	Industrial Arts Edu.	(430) 3	Prin. of Education	(410) 3
School Admin.	(600) 3	Industrial Arts Edu.	(608) 3	Prin. of Education	(440) 5
Elective	11	School Admin.	(601) 3	Industrial Arts Edu.	(610) 3
		Elective	8	Elective	6

NOTE: In addition to major courses indicated, students in Industrial Arts Education must obtain non-professional work to make a total of 50 Quarter-credit hours in this group. They must also offer a minor of from 25 to 30 Quarter-credit hours.

† Industrial Arts Education 600 is required of all men students in the College of Education in their Junior year; it may be elected any Quarter.

REQUIREMENTS FOR A DEGREE

Upon the satisfactory completion of one hundred and ninety Quarter-credit hours, under the restrictions and requirements prescribed above, the student will be recommended for the degree of Bachelor of Science in Education.

INDUSTRIAL ARTS EDUCATION

For a major in Industrial Arts Education, see sequence of courses on page 55.

CURRICULUM FOR TEACHERS, SUPERVISORS, AND PRINCIPALS
IN ELEMENTARY SCHOOLS

FIRST YEAR

Autumn Quarter		Winter Quarter		Spring Quarter	
Biological Science	5	Biological Science	5	Psychology	(401) 5
Social Science	5	Social Science	5	English	(401) 5
Foreign Language		Foreign Language		Foreign Language	
or Elective	5	or Elective	5	or Elective	5
Survey of Education	1	Military Science	1	Military Science	1
Military Science	1	Physical Education	1	Hygiene	(400) 1
Physical Education	1			Physical Education	1

SECOND YEAR

Psychology	(407) 5	English (433, 441, 442,	Prin. of Education	(401) 5
Military Science	1	or 446)	Military Science	1
Physical Edu. (Women)	1	Military Science	Physical Edu. (Women)	1
Elective	10	Physical Edu. (Women)	Elective	10
		Elective		10

THIRD YEAR

Autumn Quarter	Winter Quarter	Spring Quarter	
Prin. of Education (493) 3	Prin. of Education (492) 3	Elective	15
Prin. of Education (494) 3	Elective	12	
History of Education (401) 5			
Elective	4		

NOTE: Not later than the beginning of the fourth year, students who are pursuing this curriculum and who expect to be teachers or supervisors in the elementary schools must file a statement to that effect in the office of the Secretary of the College of Education.

FOURTH YEAR

School Admin. (600) 3	School Admin. (601) 3	Prin. of Education (430) 5
Elective 12	Elective 12	Prin. of Education (441) 10

THIRD AND FOURTH YEAR ELECTIVES

Electives must be so chosen as, when combined with required work, to offer a major consisting of 45 to 50 Quarter-credit hours in one field, and a minor consisting of 25 to 30 credit hours in another field. In meeting the major and minor requirements, students may, with the consent of the Department of Principles and Practice of Education and the Dean of the College of Education, combine courses from two or more related fields.

Principles of Education 401, 430, 441, 492, 493, and 494 must be taken by all students. Principles of Education 304, 305, and 306, offered only in the Summer Quarter, will be allowed as subject-credit for 492, 493, and 494, respectively.

REQUIREMENTS FOR A DEGREE

Upon the satisfactory completion of one hundred and ninety Quarter-credit hours, under the restrictions and requirements prescribed above, the student will be recommended for the degree of Bachelor of Science in Education.

PHYSICAL EDUCATION—MEN

NOTE: The purpose of this curriculum is the preparation of teachers of physical education, athletic coaches, recreation directors, city and state supervisors, Y.M.C.A. and Y.W.C.A. physical directors, and persons for various other types of positions that are open to men and women trained in this field. All students taking Physical Education as a major or minor must have their schedules approved by their adviser in the Department of Physical Education each Quarter.

FIRST YEAR

Autumn Quarter	Winter Quarter	Spring Quarter
Zoology (401) 5	Anatomy (414) 5	English (401) 5
Chemistry (401 or 411) 5	Chemistry (402 or 412) 5	Psychology (401) 5
Survey of Education 1	*Foreign Language	*Foreign Language
Physical Education (401) 1	or Elective	5 or Elective 5
Military Science 1	Physical Education (402) 1	Hygiene (400) 1
Elective 5	Military Science	Physical Education (403) 1
		Military Science 1

*Students who have credit for three units of foreign language in high school are not required to take foreign language in college. Students who enter with less than this amount must obtain college credit for either ten hours of a foreign language begun in high school, or fifteen hours of a foreign language not taken in high school.

SECOND YEAR

Autumn Quarter		Winter Quarter		Spring Quarter	
Psychology	(407) 5	English (433, 441, 442,		Anatomy	(412) 5
Physiology	(403) 5	or 446)	5	Prin. of Education	(401) 5
Physical Education	(441) 2	Physiology	(404) 5	Physical Education	(443) 2
Military Science	1	Physical Education	(442) 2	Military Science	1
Elective	2	Military Science	1	Elective	2
		Elective	2		

THIRD YEAR

History of Education	(404) 3	History of Education	(405) 3	Public Speaking	(401) 5
Sociology	(401) 5	Sociology	(402) 5	Physical Education	(447) 3
Physical Education	(691) 3	Physical Education	(683) 5	Physical Education	(498) 3
Physical Education	(445) 3	Physical Education	(446) 3	Elective	4
Elective	2				

FOURTH YEAR

Physical Education	(685) 3	Physical Education	(692) 3	Physical Education	(451) 3
Physical Education	(449) 3	Physical Education	(450) 3	Prin. of Education	(440) 5
School Admin.	(600) 3	Physical Education	(682) 5	Elective	7
Elective	6	Elective	5		

NOTE: Students who desire to major in Physical Education should consult with Dr. J. H. Nichols, Men's Gymnasium, before registering.

REQUIREMENTS FOR A DEGREE

Upon the satisfactory completion of one hundred and ninety Quarter-credit hours, under the restrictions and requirements prescribed above, the student will be recommended for the degree of Bachelor of Science in Education.

PHYSICAL EDUCATION—WOMEN

FIRST YEAR

Autumn Quarter		Winter Quarter		Spring Quarter	
Zoology	(401) 5	Anatomy	(414) 5	English	(401) 5
Chemistry	(401 or 411) 5	Chemistry	(402 or 412) 5	Psychology	(401) 5
Survey of Education	1	*Foreign Language		*Foreign Language	
Physical Education	(421) 1	or Elective	5	or Elective	5
Elective	5	Physical Education	(422) 1	Hygiene	(400) 1
				Physical Education	(423) 1

*Students who have credit for three units of foreign language in high school are not required to take foreign language in college. Students who enter with less than this amount must obtain college credit for either ten hours of a foreign language begun in high school, or fifteen hours of a foreign language not taken in high school.

COLLEGE OF EDUCATION

SECOND YEAR

Autumn Quarter		Winter Quarter		Spring Quarter	
Psychology	(407) 5	English (433, 441, 442,	Anatomy	(412) 5	
Physiology	(403) 5	or 446)	5	Prin. of Education	(401) 5
Physical Education	(541) 3	Physiology	(404) 5	Physical Education	(543) 3
Physical Education	(425) 1	Physical Education	(542) 3	Physical Education	(427) 1
Elective	2	Physical Education	(426) 1	Elective	2
		Elective	2		

THIRD YEAR

History of Education	(404) 3	History of Education	(405) 3	Public Speaking	(401) 5
Sociology	(401) 5	Sociology	(402) 5	Physical Education	(493) 3
Physical Education	(691) 3	Physical Education	(683) 5	Physical Education	(547) 3
Physical Education	(545) 3	Physical Education	(546) 3	Elective	3
Elective	2				

FOURTH YEAR

Physical Education	(671) 3	Physical Education	(692) 3	Physical Education	(682) 5
Physical Education	(549) 3	Physical Education	(550) 3	Physical Education	(551) 3
School Admin.	(600) 3	Elective	10	Prin. of Education	(440) 5
Elective	6			Elective	2

NOTE: Students who desire to major in Physical Education should consult with Miss Lydia Clark, Pomerene Hall, before registering.

REQUIREMENTS FOR A DEGREE

Upon the satisfactory completion of one hundred and ninety Quarter-credit hours, under the restrictions and requirements prescribed above, the student will be recommended for the degree of Bachelor of Science in Education.

EDUCATION-SCIENCE NURSING

NOTE: The purpose of this curriculum is the preparation of school nurses and teachers in schools of nursing. Graduates are eligible for the State Medical Board examinations for registration in Ohio. During the time devoted to nursing practice maintenance is furnished, free of charge, by the College of Medicine.

FIRST YEAR

Autumn Quarter		Winter Quarter		Spring Quarter	
Chemistry	(401 or 411) 5	Chemistry	(402 or 412) 5	Public Health	(406) 1
Elementary or General		Elementary or General		Public Health	(407) 1
English	(401) 5	Psychology	(401) 5	or	
Public Health	(404) 3	Anatomy	(414) 5	Elective	
Public Health	(407) 2	Comparative		Home Economics	(411) 5
or		Physical Education	(422) 1	Foods	
Elective		Hygiene	(400) 1	Anatomy	(410) 3
Survey of Education	1			Visceral	
Physical Education	(421) 1			Physical Education	(423) 1
				Elective	5

Summer Quarter

- *Science Nursing (501) 3-12
- Ward Duty, Drugs
- and Solutions
- Science Nursing (502) 3
- Ward Duty

* All courses in Science Nursing, 501 to 514 inclusive, are given at the University Hospital.

SECOND YEAR

Autumn Quarter	Winter Quarter	Spring Quarter
Bacteriology (607) 5	Bacteriology (608) 3	Psychology (402) 5
General Bacteriology	Pathogenic Bacteriology	Home Economics (412) 5
Physiology (408) 5	Physiology (404) 5	Foods
†Foreign Language	English (438) (441)	History of Education (404) 3
or Elective 5	(442) or (446)	††Foreign Language
Physical Education (425) 1	†Foreign Language	or Elective 5
	or Elective 5	Physical Education (427) 1
	Physical Education (426) 1	
Summer Quarter		
Science Nursing (503) 16		
Ward Duty		

THIRD YEAR

Autumn Quarter	Winter Quarter	Spring Quarter
History of Education (405) 3	Science Nursing (504) 1	Psychology (407) 5
School Admin. (600) 3	Elementary Pathology	Educational Psychology
Public Speaking (402) 5	Science Nursing (505) 4	Prin. of Education (401) 5
Debating	Medical Nursing and	Sociology (402) 5
Sociology (401) 5	Materia Medica	Public Health (403) 2
	Science Nursing (506) 4	
	Surgical Nursing and	
	Operating Room	
	Technic	
	Science Nursing (507) 3	
	Ward Duty	
Summer Quarter		
Science Nursing (508) 16		
Ward Duty		

FOURTH YEAR

Autumn Quarter	Winter Quarter	Spring Quarter
Science Nursing (509) 3	School Admin. (601) 3	Public Health (602) 3
Gynecological and	Child Accounting	Public Health
Obstetrical Nursing	Science Nursing (518) 3	Problems
Science Nursing (510) 3	Ward Duty	Educational Nursing (553) 3
Orthopedic and	Elective 5	Methods of Teaching
Child Nursing		Educational Nursing
Science Nursing (511) 3		Prin. of Education (440) 5
Communicable Diseases		Economics (644) 3
and Special Senses		Standard of Living
Nursing		Elective 2
Science Nursing (512) 3		
Ward Duty		

† Students who have credit for three units of some one foreign language in high school are not required to take any foreign language in college. Students who enter with less than this amount must obtain college credit for either ten hours of a foreign language begun in high school, or fifteen hours of a foreign language taken in college.

†† Students who do not take a third Quarter of foreign language should elect Psychology (401) in the Spring Quarter of the first year rather than in the Winter Quarter.

COLLEGE OF EDUCATION

Summer Quarter

Science Nursing (514) 16
Ward Duty

FIFTH YEAR

The work of the fifth year will cover three Quarters and will be divided between the University Hospital School for Nurses and the University. In the last Quarter the student must include courses to make a total of fifty professional hours in the College of Education.

REQUIREMENTS FOR A DEGREE

Upon the satisfactory completion of two hundred and ninety-five Quarter-credit hours, under the restrictions and requirements prescribed above, the student will be recommended for the degree of Bachelor of Science in Education and for a diploma in Nursing.

VOCATIONAL EDUCATION

*(Teachers of Academic Subjects in Continuation Schools)

FIRST YEAR

Autumn Quarter			Winter Quarter			Spring Quarter		
English	(401)	5	History	(403)	5	History	(404)	5
Mathematics	(421)	5	Mathematics	(422)	5	Mathematics	(423)	5
Engr. Drawing	(435)	5	Psychology	(401)	5	Psychology	(402)	5
Survey of Education		1	Hygiene	(400)	1	Military Science		1
Military Science		1	Military Science		1	Physical Education		1
Physical Education		1	Physical Education		1			

SECOND YEAR

English	(433)	5	Economics	(401)	5	Economics	(402)	5
Physics	(401 or 403)	5	Physics	(402 or 404)	5	Political Science	(401)	5
or			or			Psychology	(407)	5
Chemistry	(401 or 411)	5	Chemistry	(402 or 412)	5	Military Science		1
Geography	(401)		Geography	(403)		Physical Edu. (Women)		1
Military Science		1	Military Science		1			
Physical Edu. (Women)		1	Physical Edu. (Women)		1			

THIRD YEAR

Physiology	(401 or 403)	5	Physiology	(402 or 404)	5	Prin. of Education	(401)	5
Economics	(637)	3	Political Science	(403)	5	Vocational Education	(506)	2
History of Education	(404)	3	History of Education	(405)	3	School Admin.	(600)	3
Electives		5	Electives		5	Electives		5

FOURTH YEAR

Sociology	(401)	5	Sociology	(402)	5	School Admin.	(601)	3
Economics	(661)	3	Economics	(662)	3	Economics	(663)	3
Vocational Education	(602)	2	Electives		5	Prin. of Edu.	(440)	5
Electives		5				Electives		5

NOTE: The purpose of the above curriculum is to prepare candidates to teach academic subjects in part-time (continuation) schools and classes. Before candidates will be granted a degree they must furnish satisfactory evidence of having had at least one year of practical experience in either industrial or commercial pursuits.

* For a sequence of courses for teachers of shop and related subjects in vocational schools, see page 55.

REQUIREMENTS FOR A DEGREE

Upon the satisfactory completion of one hundred and ninety Quarter-credit hours, under the restrictions and requirements prescribed above, the student will be recommended for the degree of Bachelor of Science in Education.

SEQUENCE OF COURSES FOR MAJORS AND MINORS

**MAJOR IN INDUSTRIAL ARTS EDUCATION
(And Engineering Drawing and Industrial Engineering)**

A suggested sequence of courses for students of the College of Education majoring in Industrial Arts Education (and Engineering Drawing and Industrial Engineering).

FIRST YEAR:

Autumn Quarter—Engineering Drawing 401
Winter Quarter—Engineering Drawing 436

SECOND YEAR:

Autumn Quarter—Industrial Arts Education 400
Winter Quarter—Industrial Arts Education 410; Industrial Engineering 416
Spring Quarter—Industrial Arts Education 412; Industrial Engineering 419

THIRD YEAR:

Autumn Quarter—Industrial Arts Education 414, 450
Winter Quarter—Industrial Engineering 411; Industrial Arts Education 452, 600
Spring Quarter—Industrial Arts Education 416

FOURTH YEAR:

Autumn Quarter—Industrial Arts Education 606
Winter Quarter—Industrial Arts Education 430, 608
Spring Quarter—Industrial Arts Education 610

MINOR IN INDUSTRIAL ARTS EDUCATION

Men and women planning to minor in Industrial Arts Education should first consult with the department concerning a sequence of courses.

MAJOR IN VOCATIONAL EDUCATION

**(For Students who wish to teach Shop Subjects in Vocational
Industrial Schools)**

Students who are majoring in Vocational Education* must include the following courses in their elections. While rigid adherence to the

* This does not have reference to students who are preparing to become teachers of commercial subjects or of academic subjects in part-time (general continuation) schools. (See page 54.)

order in which the subjects appear here will not be required, the order should be followed as closely as possible.

Industrial Arts Education	(412) 3	Industrial Engineering	(416) 3
Industrial Arts Education	(414) 3	Industrial Engineering	(407) 2
Engineering Drawing	(435) 5	Industrial Engineering	(419) 3
Engineering Drawing	(436) 5	Vocational Education	(506) 2
Industrial Engineering	(405) 3	Vocational Education	(510) 3

In addition to the foregoing, students must elect at least fifteen hours from the following:

Industrial Arts Education	(416) 3	Industrial Engineering	(421) 3
Industrial Arts Education	(450) 3	Industrial Engineering	(623) 3
Industrial Engineering	(408) 2	Vocational Education	(504) 2
Industrial Engineering	(415) 3		

NOTE: Students in Vocational Education must also secure credit for Vocational Education 502, 511, and 512, which will be counted as part of the fifty hours of professional work required of students in the College of Education.

MINOR IN MUSIC

The following courses are recommended for students minoring in Music:

History and Appreciation of Music (430, 431, 432)	12 hours
Essentials of Music (480, 481)	4 hours
Harmony (470, 471, 620, 621)	14 hours

A minor in public school music requires the following:

General Music Methods (440, 441)	8 hours
Essentials of Music (480, 481)	4 hours
Sight Singing (482, 483)	6 hours
Harmony (470)	4 hours
History and Appreciation of Music (430, 431)	8 hours

Credits necessary to a minor in public school music may also be earned by Summer Quarter attendance only. The work may be completed in four six-weeks terms. Students minoring in music in the Summer, or either majoring or minoring in the subject during the academic year, must complete outside the University two years study of piano and one year's study of voice. (In exceptional cases, violin study will be accepted in place of voice.) Only work will be credited which has been undertaken after high school graduation. This work, and general work in the group, may be taken concurrently. For minor in music in the Summer Quarter, see the Summer Quarter Bulletin.

MINOR IN PHYSICAL EDUCATION

NOTE: Students planning to minor in Physical Education should first consult with the department. Men should see Dr. J. H. Nichols, at the Men's Gymnasium. Women should see Miss Lydia Clark, at Pomerene Hall.

MEN

A suggested sequence of courses for students planning to teach Physical Education in elementary and secondary schools:

SECOND YEAR:

Autumn Quarter—Physical Education 441

Winter Quarter—Physical Education 442

THIRD YEAR:

Autumn Quarter—Physical Education 445, 691

Winter Quarter—Physical Education 683

FOURTH YEAR:

Winter Quarter—Physical Education 682, 692

A suggested sequence of courses for students planning to coach Athletics in connection with other teaching:

SECOND YEAR:

Spring Quarter—Physical Education 443

THIRD YEAR:

Winter Quarter—Physical Education 446, 683

Spring Quarter—Physical Education 447

FOURTH YEAR:

Autumn Quarter—Physical Education 449, 685

Winter Quarter—Physical Education 682, 692

NOTE: Prerequisites for all students who minor in Physical Education are: one unit of high school chemistry or Chemistry 401-402, and Physiology 401-402.

WOMEN

Students planning to minor in Physical Education preparatory to teaching in the elementary and secondary schools should take the following sequence:

FIRST YEAR: Chemistry 401-402 or 411-412

SECOND YEAR: Physical Education 541, 542, 543

Physiology 403-404

THIRD YEAR: Physical Education 545, 683, and 547 or 551

FOURTH YEAR: Physical Education 692, 682

Those wishing to teach in colleges should take the following sequence:

FIRST YEAR: Chemistry 401-402 or 411-412

SECOND YEAR: Physical Education 541, 542

Physiology 403-404

THIRD YEAR: Physical Education 545, 546, 547, 683

FOURTH YEAR: Physical Education 550, 692, 682

Students wishing to supervise Community Recreation work should take the following:

FIRST YEAR: Chemistry 401-402 or 411-412

SECOND YEAR: Physical Education 541, 542, 543
Physiology 403-404

THIRD YEAR: Physical Education 550, 551, 683

FOURTH YEAR: Physical Education 692, 682

NOTE: Chemistry 401-402 or 411-412 and Physiology 403-404 are prerequisite for the minor.

MAJOR IN CHEMISTRY

A suggested sequence of courses in Chemistry for students of the *College of Education majoring in Chemistry*:

FIRST YEAR: Chemistry 401-402-403 or 411-412-413

SECOND YEAR: Chemistry 421-422-423, 424

THIRD YEAR:

Autumn Quarter—Chemistry 447, 449

Winter Quarter—Chemistry 448, 450, 662

FOURTH YEAR:

Autumn Quarter—Chemistry 681, 691

Winter Quarter—Chemistry 682, 692

Spring Quarter—Chemistry 683, 693, and Principles of Education 710 (Teaching of Chemistry)

NOTE: The student should take at least two Quarters of college physics.

MAJOR IN GEOGRAPHY

A suggested sequence of courses for students planning to teach geography in the elementary and secondary schools.* This sequence in geography is arranged so that the student may take two or more courses in geography and one in botany, counting them as part of the geography sequence.

FIRST YEAR:

Autumn Quarter—Geography 401

Winter Quarter—Geography 403

Spring Quarter—Geology 420

SECOND YEAR:

Autumn Quarter—Geology 401 and Geography 411

Winter Quarter—Geography 422

Spring Quarter—Geography 603 or Botany 423

THIRD YEAR:

Autumn Quarter—Geography 621 or 623

Winter Quarter—Geography 624

Spring Quarter—Geography 631

FOURTH YEAR:

Autumn Quarter—Geography 604 and 632

Winter Quarter—Geography 661

Spring Quarter—Geography 642

* Students preparing to teach commercial geography should take the special curriculum, page 44.

MINOR IN GEOGRAPHY

The following sequence of courses is recommended for students wishing to take a minor in geography:

Geography	(401) 5	Geography	(605) 2
Geography	(403) 5	Geography	(621) 3
Geography	(411) 4	Geography	(623) 3
Geography	(422) 3		

MAJOR IN ENGLISH

A suggested sequence of courses in English for students of the *College of Education majoring in English*:

FIRST YEAR:

- Autumn Quarter—English 401 or 433, or Public Speaking 401
- Winter Quarter—English 401 or 433, or Public Speaking 402
- Spring Quarter—English 401 or 433, or Public Speaking 407

SECOND YEAR:

- Autumn Quarter—English 441 or 446 or 405 or 429 or 636 or Public Speaking 401
- Winter Quarter—English 441 or 442 or 446 or 427 or 405 or Public Speaking 402 or Public Speaking 407
- Spring Quarter—English 441 or 442 or 446 or 428 or 465 or 407 or Public Speaking 407

THIRD YEAR:

- Autumn Quarter—English 636 or 651 or 658
- Winter Quarter—English 657 or 659 or 652 or 653 or Public Speaking 459
- Spring Quarter—English 639 or 643 or 657 or Public Speaking 414, or Principles of Education 715 (Teaching of English)

FOURTH YEAR:

- Autumn Quarter—English 658 or 667 or Public Speaking 625
- Winter Quarter—English 655 or 670 or Public Speaking 421
- Spring Quarter—English 654 or 656 or 672 or Public Speaking 625

MAJOR IN GERMAN

A suggested sequence of courses in German for students of the *College of Education majoring in German*:

FIRST YEAR:

- Autumn Quarter—German 401
- Winter Quarter—German 402
- Spring Quarter—German 403

SECOND YEAR:

- Autumn Quarter—German 404 or 406
- Winter Quarter—Advanced German (five hours)
- Spring Quarter—Advanced German (five hours)

THIRD YEAR:

Autumn Quarter—Proseminary in German Literature (three hours), 655

Winter Quarter—Proseminary in German Literature (three hours)

Spring Quarter—Proseminary in German Literature (three hours)

NOTE: At least two Quarters in History of Philosophy and one Quarter in Advanced English Literature.

FOURTH YEAR:

Autumn Quarter—Proseminary in German Literature (three hours), Principles of Education 725 (Teaching of German)

Winter Quarter—German 685

Spring Quarter—German 675

NOTE: Recommended additional—Introduction to Study of Language (one Quarter), and Advanced English Literature (one Quarter).

MAJOR IN LATIN

A suggested sequence of courses in Latin for students of the College of Education majoring in Latin:

FIRST YEAR:

Autumn Quarter—Latin 401 or 406

Winter Quarter—Latin 402 or 407

Spring Quarter—Latin 403 or 408

SECOND YEAR:

Autumn Quarter—Latin 501 or 507

Winter Quarter—Latin 504

Spring Quarter—Latin 408, 506, 508 or 602

THIRD YEAR:

Autumn Quarter—Latin 503, 507, 615, or Principles of Education 730 (Methods of Teaching Latin)

Winter Quarter—Latin 504 or 612

Spring Quarter—Latin 506, 508, 602, 609, 611, 613, or 616

NOTE: Students who elect more than one course in a given Quarter should distribute their courses between the three types of work: reading courses, lecture courses, professional work.

FOURTH YEAR:

Autumn Quarter—Latin 503, 507, 615, or Principles of Education 730 (Methods of Teaching Latin)

Winter Quarter—Latin 504 or 612

Spring Quarter—Latin 506, 508, 602, 609, 611, 613, or 616

NOTE: Students who elect more than one course in a given Quarter should distribute their courses between the three types of work: reading courses, lecture courses, professional work.

MAJOR IN PHYSICS

A suggested sequence of courses in Physics for students of the College of Education majoring in Physics:

FIRST YEAR:

Autumn Quarter—Physics 401 or 403

Winter Quarter—Physics 402 or 404

SECOND YEAR:

Autumn Quarter—Physics 407

Winter Quarter—Physics 408

THIRD YEAR:

Autumn Quarter—Physics 602

Winter Quarter—Physics 603

Spring Quarter—Physics 604 and Principles of Education 755 (Teaching of Physics)

FOURTH YEAR: Physics 606, 607, 608, 609, 610**MAJOR IN PSYCHOLOGY**

The following sequence of courses is suggested for those who may wish to major in Psychology, as preparation for psychological work in the schools:

FIRST YEAR: Psychology 401 (required, College of Education)**SECOND YEAR:** Psychology 407 (required, College of Education)**THIRD YEAR:** Psychology 662, 611, 610, 616**FOURTH YEAR:** Psychology 650 (year), 609, 615, 651, 652, 640

NOTE: It is strongly urged that students contemplating such a course consult with the department, as early as possible, with regard to other electives and the choice of a minor subject.

MAJOR IN FRENCH OR SPANISH
(Romance Languages)

Sequences in either of the Romance Languages should be selected in accordance with the following suggestions:

French 401-402, 403-404 must precede all other courses in French except 405-406.

The undergraduate courses offered in French and Spanish beginning with third-year collegiate work fall into two general groups:

I. Literary—French 601-602, 605, 607-608, 609-610, 611-612, 613-614; Spanish 413-414, 607-608, 609-610, 611-612, 613-614, 615-616.

II. Linguistic—French 410, 623-624, 625-626, 627-628, 529; Spanish 413-414, 605-606. Students may emphasize one or both of these lines of study.

For students who enter with two years of high-school French the following outline course is recommended:

FIRST YEAR: French 403-404 or 413-414.

SECOND YEAR: (1) French 601-602.
(2) French 410.

THIRD AND FOURTH YEARS: (1) French 605, 607-608, 609, 610, 611, 612, 613, 614.
(2) French 623-624, 625-626, 627, 628, and Principles of Education 740 (Teaching of French).

For students who enter with two years of high-school Spanish the following outline course is recommended:

FIRST YEAR: French 403-404 or 413-414.

SECOND YEAR: Spanish 413-414.

THIRD AND FOURTH YEARS: Spanish 605-606, 607-608, 609-610, 611-612, 613-614, 615-616, 617, 619, 620, and Principles of Education 745 (Teaching of Spanish).

NOTE: To receive a departmental recommendation as a teacher of French, the student must have taken French 401-402, 403-404, 601-602, 627, 628, and Principles of Education 740 (Teaching of French), or their equivalent.

To receive a departmental recommendation as a teacher of Spanish, the student must have taken Spanish 401-402, 403-404, 413-414 or their equivalent; and in addition an advanced course, 619, 620, and the courses for teachers, Spanish 617, and Principles of Education 745 (Teaching of Spanish).

COMBINATION CURRICULUM

ARTS-EDUCATION

A candidate who has received credit for 220 Quarter-hours, including military science, physical education, and hygiene, and who has met all of the requirements of the College of Arts for the degree of Bachelor of Arts, as well as all of the requirements of the College of Education for the degree of Bachelor of Science in Education, will be recommended for both degrees. It is possible to meet these double requirements within a period of four and one-quarter years, or thirteen Quarters.

Residence in the Colleges. The student should register in both the College of Arts and the College of Education as soon as he decides to become a candidate for both degrees, and in any case not later than the beginning of his third year. A later decision may occasion loss of time. It is possible to apply (to the University Examiner) for double registration as late as the beginning of the last year in residence. The candidate must comply with the requirements of both Colleges and have his course of study approved by the Secretaries of both of these Colleges.

A student entering with advanced credit from other colleges must be in residence in the College of Liberal Arts and in the College of Education for at least one year. To be eligible for the degree of Bachelor of Arts, he must obtain credit, during the time registered in the College of Arts, for at least 45 hours and 90 points in courses listed in the Bulletin of the College of Liberal Arts; and to be eligible for the degree of Bachelor of Science in Education, he must obtain credit for 45 hours and 90 points in courses listed in this *Bulletin*.

Requirements in Points and Hours. To be eligible for both degrees, Bachelor of Arts and Bachelor of Science in Education, the candidate must have secured credit for 220 hours, including the requirements in military science, physical education, and hygiene, at the rate of not less

than 1.8 points per credit hour undertaken. Of these, 160 hours must be gained by taking courses elective in the College of Arts. Of the remaining 60 hours, not less than 50 hours must be taken in professional courses of the College of Education, as outlined on page 37 of this *Bulletin*, and points secured for work in professional courses must be at the 1.8 points per hour ratio.

Degrees. In general the candidate will find it necessary to carry on courses in both Colleges throughout at least the last three years of the combination curriculum, completing the work of both Colleges simultaneously. The two degrees will therefore be conferred at the same time. There is no objection, however, to conferring the degrees at different times, if the candidate should order his work in such a way as to make this desirable.

A student who has completed the course in practice teaching will not be recommended for the degree of Bachelor of Arts until he has met all the requirements for the degree of Bachelor of Science in Education.

DEPARTMENTS OF INSTRUCTION

ACCOUNTING

Office, 309 Commerce Building

PROFESSOR GREER, ASSISTANT PROFESSOR MILLER, MR. BOLON, MR. WILL-COX, MR. CASTERTON, MR. SHONTING, AND DEPARTMENT ASSISTANTS

401-402. Elements of Accounting. Five credit hours. Two Quarters. Both 401 and 402 are given Autumn, Winter, Spring. Three recitations and two two-hour laboratory periods each week. Prerequisite or concurrent, Economics 401-402 or 403-404. Mr. Shonting and assistants.

The work of the first Quarter consists of the theory of account construction together with the development of books of original entry.

The second Quarter is devoted to the application of accounting principles to the different forms of business organization and the preparation and interpretation of financial statements.

FOR ADVANCED UNDERGRADUATES AND GRADUATES

601. Advanced Principles of Accounting. Five credit hours. One Quarter. Autumn, Winter, Spring. Five lectures and recitations each week. Prerequisite, Accounting 401-402. Mr. Bolon, Mr. Shonting.

The principles of modern accounting, especially those connected with the corporate balance sheet and income statement. Accounting problems arising in the organization of a corporation. Treatment of capital stock and bond issues, depreciation. Various forms of income statements in typical manufacturing enterprises. Principles of valuation of assets.

602. Advanced Principles of Accounting. Five credit hours. One Quarter. Autumn, Winter, Spring. Five lectures and recitations each week. Prerequisite, Accounting 601. Mr. Miller.

The accounting procedure in connection with corporate reorganizations and dissolutions. Consolidated balance sheets and income statements, branch house accounting, foreign exchange accounting.

603-604. Cost Accounting. Four credit hours. Two Quarters. 603, Autumn and Winter; 604, Winter and Spring. Three lectures and recitations and one two-hour laboratory period each week. Prerequisite or concurrent, Accounting 601. Not open to students who are taking Accounting 624. Mr. Willcox.

Accounting 603: General methods of collecting costs of material, labor, and burden and incorporating them in the books of account. Cost control including the use of the perpetual inventory and various subsidiary ledgers.

Accounting 604: Various methods of distributing burden costs. Presentation of cost data. Problems of cost accounting in multiple process industries.

616. Business Statements. Three credit hours. One Quarter. Autumn and Spring. Three hours of lectures and problems each week. Prerequisite, Accounting 601. Mr. Bolon.

A study of the different kinds of statements prepared by corporations for the guidance of executives, directors, stockholders, and creditors. The methods used in preparing the necessary statements together with the principles of statement interpretation. Use is made of current statements of well-known corporations. Lectures and problems.

623. Retail Accounting. Three credit hours. Autumn Quarter. Three lectures and recitations each week. Prerequisite, Accounting 401-402. Not open to students taking Accounting 612 or doing major work in the accounting group. Mr. Greer.

The principles of accounting as applied to the operations of retail merchandising enterprises. A study of the forms and procedure used in retail stores, with particular reference to the systems of department stores, chain stores, and other establishments prominent in the field. This course is intended primarily for students whose major interest is in fields other than accounting.

AGRICULTURAL CHEMISTRY

Office, 211 Townshend Hall

PROFESSOR LYMAN, ASSISTANT PROFESSORS ALMY AND
BURRELL, MR. HINKLE

402. Household Chemistry. Five credit hours. One Quarter. Autumn, Winter, Spring. Three recitations and two three-hour laboratory periods each week. Home Economics, second year. Prerequisite, Chemistry 402 or 412. Mr. Almy, Mr. Burrell.

An introductory course in organic chemistry and its applications to household affairs. Laboratory work consists of a brief introduction to quantitative analysis, followed by the quantitative examination of carbohydrates, fats, and proteins, and other substances of interest in the household.

403. Household Chemistry. Five credit hours. One Quarter. Autumn, Winter, Spring. Three lectures and two three-hour laboratory periods each week. Home Economics, second year. Prerequisite, Agricultural Chemistry 402. Mr. Lyman, Mr. Burrell, Mr. Hinkle.

Lectures on the chemistry of human nutrition. Laboratory work on the chemistry of digestion, utilization of food by animals, growth, storage of food reserves, oxidation, and the products of oxidation in the animals.

AGRICULTURAL ENGINEERING

Office, 105 Ives Hall

PROFESSOR McCUEN, ASSISTANT PROFESSOR POTTER

406. Household Mechanics. Five credit hours. One Quarter. Autumn, Winter, Spring. Two lectures, one recitation, and two three-hour

laboratory periods each week. Home Economics, second year. Mr. Potter.

A study of the construction, care, and operation of the mechanical equipment of the household, including laundry and cleaning equipment, kitchen apparatus, water supply systems, plumbing and sewage disposal, electrical appliances, etc. Laboratory is a comparative study of different types of machines, operation and repair of equipment.

AMERICAN HISTORY

(See History)

ANATOMY

Office, Hamilton Hall

PROFESSOR LANDACRE, ASSISTANT PROFESSOR KNOUFF, MRS. SEARLES,
AND DEPARTMENT ASSISTANTS

401. Comparative Anatomy of the Vertebrates. Five credit hours. Autumn Quarter. Two lectures or recitations and three two-hour laboratory periods each week. Not open to Freshmen. Mrs. Searles.

The anatomy of the lower vertebrates.

408. Elementary Neurology. Five credit hours. Autumn Quarter. Two lectures and six laboratory hours each week. Not open to Freshmen. Mr. Landacre.

The gross structures of the brain and sense organs with special reference to their functional significance.

409. Elementary Neurology. Five credit hours. Winter Quarter. Two lectures and six laboratory hours each week. Not open to Freshmen. Mr. Landacre.

The study of the microscopic structures of the sense organs and of the spinal cord and brain with special reference to reaction systems.

410. Visceral Anatomy. Three credit hours. One Quarter. Autumn and Spring. One lecture and four laboratory hours each week. Education-Science Nursing, second year. Prerequisite, two Quarters of biology. Open to Nurses, Juniors, and Seniors. Mrs. Searles.

A lecture and demonstration course on the viscera of mammals with special reference to visceral anatomy in man. This course is designed for women specializing in nursing and dietetics.

412. Elementary Human Anatomy. Five credit hours. Spring Quarter. Two lectures or recitations and six laboratory or demonstration hours each week. Physical Education, second year. Prerequisites, Zoology 401 and Anatomy 414. Mr. Knouff and assistant.

A brief study of visceral anatomy of the human body on the foundation laid in Anatomy 402, followed by a study of the skeleton, joints and muscles as a preliminary to kinesiology.

414. **Comparative Anatomy of the Vertebrates.** Five credit hours. Winter Quarter. Two lectures and six laboratory hours each week. Physical Education and Education-Science Nursing, first year. Prerequisite, Zoology 401. Mrs. Searles.

The anatomy of one or more of the higher vertebrates.

This course is not open to students who have credit for Anatomy 402.

FOR ADVANCED UNDERGRADUATES AND GRADUATES

607. **Comparative Neurology.** Five credit hours. Autumn Quarter. One lecture or conference and eight laboratory hours each week. Prerequisite, Anatomy 401-402, or 403-404, or 626. Mr. Landacre.

The origin of the ganglia, central nervous system, and sense organs of the lower vertebrates.

608. **Comparative Neurology.** Five credit hours. Winter Quarter. One lecture and eight laboratory hours each week. Prerequisite, Anatomy 401-402, or 403-404, or 626. Mr. Landacre.

The reaction systems of the lower vertebrates with special reference to the interpretation of these systems in mammals.

609. **Comparative Neurology.** Five credit hours. Spring Quarter. One lecture and eight laboratory hours each week. Prerequisite, Anatomy 401-402, or 403-404, or 626. Mr. Landacre.

A study of the reaction systems in mammals with special emphasis on their phylogenetic origin.

ANCIENT ART

(See Greek Language and Literature)

ART

(See Fine Arts)

ASTRONOMY

Office, Emerson McMillin Observatory

PROFESSOR MANSON, MR. WILLIAMS

401. **General Astronomy.** Five credit hours. One Quarter. Autumn, Winter, Spring. Five lecture or quiz periods each week. There will be occasions when students will be expected to be at the Observatory during a part of the evening for observations. Prerequisites, elementary algebra and plane geometry. Mr. Manson, Mr. Williams.

An elementary course dealing with fundamental facts, principles, and methods of astronomy.

402. General Astronomy. Five credit hours. One Quarter. Autumn, Winter, Spring. Prerequisite, Astronomy 401 or its equivalent. Mr. Manson, Mr. Williams.

A continuation of Astronomy 401.

FOR ADVANCED UNDERGRADUATES AND GRADUATES

601. Practical Astronomy. Three credit hours. Spring Quarter. The time is divided among lecture, quiz, and laboratory periods as seems convenient. Prerequisite, calculus. Mr. Williams.

The course consists of a consideration of the problems of the determination of latitude, time and azimuth from observations of the stars or sun with enough astronomical theory to make possible an intelligent understanding of the methods used. A part of the laboratory work consists of the necessary observations of the stars and sun, and a part consists of reduction of these observations under supervision.

605. Introduction to Celestial Mechanics. Five credit hours. One Quarter. Autumn and Spring. Prerequisite, calculus. Students electing Astronomy 605 are advised to take either before this course or concurrently with it a course in differential equations. Mr. Manson.

A discussion of rectilinear motion under the law of inverse squares and under the law of direct distance; central forces, including the character of the orbit under different laws of attraction; the potential and attraction of bodies; the problem of two bodies, including the computation of positions of planets and comets.

606. Introduction to Celestial Mechanics. Five credit hours. Winter Quarter. Prerequisite, Astronomy 605 or equivalent. Mr. Manson.

A discussion of the determination of the orbits of planets and comets; the general integrals of the problems of "n" bodies and an introductory discussion of the problems of three bodies, lunar theory and perturbations.

607. Advanced Astronomy. Three or five credit hours. One Quarter. Autumn and Spring. The time is divided among lecture, quiz, and laboratory periods as seems convenient. Students electing this course should consult the instructor regarding prerequisites. Mr. Manson, Mr. Williams.

This course together with 608, which is a continuation of it, is designed for students who wish to take advanced work in astronomy other than that given in Astronomy 603-604 or in 605-606. The course will be adapted to the desires and capabilities of the students electing it.

608. Advanced Astronomy. Three or five credit hours. Winter Quarter. Mr. Manson, Mr. Williams.

A continuation of Astronomy 607, or by special permission may be taken by students who have not taken Astronomy 607.

***609. Stellar Astronomy.** Five credit hours. Autumn Quarter. The time is divided between lecture and laboratory periods as seems convenient. Prerequisites, Astronomy 402, trigonometry, and either high

* Not given in 1927-1928.

school or college physics. Advanced students in physics will be admitted without astronomy.

This course together with Astronomy 610, which is a continuation of it, consists of a discussion of the atomic theory, spectroscopy, and important physical principles with particular emphasis on their relation to the stars. The following topics are covered: the sun, stars, stellar motions, binary stars, nebulae, star-clusters, the galaxy, stellar evolution, and the relation of these to the physical universe.

***610. Stellar Astronomy.** Five credit hours. Winter Quarter. Prerequisite, Astronomy 609.

A continuation of Astronomy 609.

BACTERIOLOGY

Office, 202 Veterinary Laboratory Building

PROFESSORS MORREY AND STARIN, ASSISTANT PROFESSOR SPEER,
MR. JUKES, MR. BOND, MR. MCCRIMMON

These courses in bacteriology are open to advanced undergraduate and graduate students only, not to Freshmen; to Sophomores only in the Spring Quarter. The instructor in charge must be consulted before electing. Prerequisites, one year of chemistry and two Quarters of a biological science.

FOR ADVANCED UNDERGRADUATES AND GRADUATES

607. General Bacteriology. Five credit hours. One Quarter. Autumn and Spring. Two class periods and three three-hour laboratory periods each week. Home Economics, third year. Mr. Morrey, Mr. Jukes, Mr. Bond, Mr. McCrimmon.

This course is a prerequisite to all elective courses in the department and is designed to prepare for special work. The lectures consider the botanical relationships of bacteria, their morphology, classification, effect of physical and chemical environment, action on food material, etc. The laboratory work includes preparation of the ordinary culture media and making of cultures on these media, staining methods, and some typical biochemical actions.

608. Pathogenic Bacteria. Three credit hours. Winter Quarter. Three class periods each week. Prerequisite, Bacteriology 607. Mr. Morrey.

A study of the more important bacteria producing disease in man; ways of transmission and methods of protection against infectious diseases; sanitation and the theories of immunity.

609. Pathogenic Bacteria. Three credit hours. Winter Quarter. Three three-hour laboratory periods each week. Prerequisite, Bacteriology 607. Mr. Morrey, Mr. Jukes, Mr. Bond, Mr. McCrimmon.

Laboratory work on the more important bacteria producing disease in man, including cultural and staining properties, methods of diagnosis, animal inoculation.

* Not given in 1927-1928.

614. Water Examination, Sewage Disposal, Water Filtration. Three credit hours. Winter Quarter. Three class periods each week. Prerequisite, Bacteriology 607. Mr. Morrey.

A study of the organisms concerned in these processes. The modern water filtration and sewage disposal plants of the city of Columbus afford most excellent opportunities for practical demonstration and also for study of special problems.

615. Water Examination, Sewage Disposal, Water Filtration. Three credit hours. Winter Quarter. Three three-hour laboratory periods each week. Prerequisite, Bacteriology 607. Mr. Morrey.

Laboratory work on the organisms discussed in Bacteriology 614.

616. Bacteriological Chemistry. Three credit hours. Spring Quarter. Three class periods each week. Prerequisite, Bacteriology 607. Mr. Morrey.

Enzymes and the theory of their action. Technical uses of bacteria and fungi in the fermentation and allied industries.

620. Bacteriological Chemistry. Three credit hours. Spring Quarter. Three three-hour laboratory periods each week. Prerequisite, Bacteriology 607. Mr. Morrey.

Laboratory work in connection with Bacteriology 616.

617. Immunity and Serum Therapy. Three credit hours. One Quarter. Autumn and Spring. Three class periods each week. Prerequisites, Bacteriology 607, 608, and 609, or equivalent. Mr. Jukes.

A discussion of the general principles of immunity, including toxins and antitoxins, bactericidal substances, agglutinins, precipitins, opsonins, etc.

618. Immunity and Serum Therapy. Three credit hours. Spring Quarter. Three three-hour laboratory periods each week. Prerequisites, Bacteriology 607, 608, and 609, or equivalent. Mr. Jukes, Mr. McCrimmon.

Laboratory work in the preparation of toxins, antitoxins, antibacterial substances, bacterial vaccines, and in the serological methods of diagnosis.

619. Pathogenic Protozoa. Three credit hours. Spring Quarter. Three class periods each week. Prerequisites, Bacteriology 607, 608, and 609, or equivalent. Mr. Jukes.

The various protozoal diseases are considered, with special attention to trypanosomiasis, piroplasmoses, and spirochaetoses.

625-626. Special Technique in Pathogenic Bacteriology. Five credit hours. Autumn and Winter Quarters. Conferences, library, and laboratory work. Prerequisites, Bacteriology 607, 608, and 609, or equivalents. Mr. Starlin.

A course in technique in which the student is thoroughly trained in working with such material and methods as are encountered in board of health and hospital laboratories.

627. Special Problems in Pathogenic Bacteriology. Five credit hours. Spring Quarter. Conferences, library, and laboratory work. Prerequisites, Bacteriology 607, 608, 609, 625, and 626, or equivalents. Mr. Jukes.

646-647-648. Minor Investigations. Three to five credit hours each Quarter. Autumn, Winter, Spring Quarters. A student may enter at the beginning of any Quarter. Prerequisites, Bacteriology 607, 608, 609 and either 617, 618, or 625, 626 or equivalents. Mr. Morrey, Mr. Starin, Mr. Speer, Mr. Jukes.

These courses are designed for such students as have completed the equivalent of two years' work in bacteriology and are still undergraduates. The work will be outlined by the instructor in charge to meet the individual student's needs.

FOR GRADUATES

An undergraduate student shall not be permitted to take any course in the "800" group except by permission of the Graduate Council.

801-802-803. Research Work in Pathogenic Bacteriology.

804-805-806. Research Work in Agricultural or in Technical Bacteriology.

For description of graduate courses in this department see the Bulletin of the Graduate School.

BIBLIOGRAPHY

Office, The Library

MISS JONES AND MEMBERS OF THE LIBRARY STAFF

501-502-503. The Library and the School. One credit hour. Autumn, Winter, Spring Quarters. One lecture each week.

A course for teacher-librarians, dealing with the methods of teaching secondary school students how to make use of a library. Practice work is given in such technical library methods as will enable a teacher to take charge of a collection of books in a school building.

505. Bibliography of the Social Sciences: General Reference. Two credit hours. Autumn Quarter. Two lectures and two problem lists each week.

This course covers the general use of the library with special explanation of the dictionary card catalog, the library classification, dictionaries, and encyclopedias, special reference books in the field of social sciences, the magazine indexes, book-trade bibliography, book reviews, and construction of subject bibliographies.

506. Bibliography of the Social Sciences: Government Documents. Two credit hours. Winter Quarter. Two lectures and two problem lists each week. Prerequisite, Bibliography 505.

This course covers the fundamental sources in the social sciences as found in the publications of the national, state, municipal, and foreign governments. Detailed study is made of the administrative organization, functions, and publications and their indexes of various government offices, particularly as they relate to the social sciences.

BOTANY

Office, 102 Botany and Zoology Building

PROFESSORS TRANSEAU, SCHAFFNER, STOVER, AND SAMPSON, ASSISTANT
PROFESSORS WALLER, TIFFANY, AND SAYRE, MR. MEYER, MR.
HUMPHREY, MISS LAMPE, AND DEPARTMENT ASSISTANTS

401. General Botany. Five credit hours. One Quarter. Autumn, Winter, Spring. Three recitations and two two-hour laboratory periods each week. Mr. Sampson, Mr. Waller, Mr. Tiffany, Mr. Sayre, Mr. Meyer, Mr. Humphrey, Miss Lampe, and assistants.

A study of the structure of leaves, stems and roots; growth and nutritive processes of plants, and the relation of plants to their environments. Demonstrations to explain plant processes and field trips dealing with the classification of trees and the effect of the factors of climate and soil on growth, reproduction, duration, and distribution of plants.

402. General Botany. Five credit hours. One Quarter. Autumn, Winter, Spring. Three recitations and two two-hour laboratory periods each week. Mr. Sampson, Mr. Waller, Mr. Tiffany, Mr. Sayre, Mr. Meyer, Mr. Humphrey, Miss Lampe, and assistants.

A study of reproduction, seeds, fruits, variations, heredity and evolution in plants, followed by a general survey of the great climatic formations of the natural vegetation of North America and their relations to the centers of crop distribution; the nutrition and reproduction of bacteria and fungi in relation to decay, nitrate formation, diseases, and sanitation; a survey of the great plant groups, and the classification of some of the common plants of Ohio.

405. Local Flora. Five credit hours. Spring Quarter. Two lectures and three two-hour laboratory periods each week. Prerequisite, Botany 401-402. Mr. Tiffany.

The aim of the course is to become familiar with the plants, other than ferns and seed plants, common in Ohio. Laboratory work devoted to identification, by keys and manuals, of common forms of algae, fungi, liverworts, and mosses. Lectures on methods of collection and preservation, chief characteristics, and economic importance of the groups.

406. Local Flora. Five credit hours. Spring Quarter. Two lectures and six hours laboratory and field work each week. Prerequisite, Botany 401-402. Mr. Tiffany.

A laboratory, field and lecture course devoted to classifying the ferns and seed plants common in Ohio. Field characteristics and identification in the field will be emphasized as well as use of manuals and keys.

409. General Morphology of Thallophytes and Bryophytes. Five credit hours. Autumn Quarter. Three lectures and two two-hour laboratory periods each week. Prerequisite, Botany 401-402.

A study of the classification and life histories of the algae, fungi, liverworts, and mosses. The laboratory work will consist of a study of the vegetative and reproductive structures of the several groups.

410. General Morphology of the Pteridophytes and Spermatophytes. Five credit hours. Winter Quarter. Three lectures and two two-hour laboratory periods each week. Prerequisite, Botany 401-402.

A study of the structure and life histories of the ferns, gymnosperms, and angiosperms, giving particular attention to the structure and development of seed plants.

415. Plant Physiology. Five credit hours. Autumn Quarter. Three lectures and two two-hour laboratory periods each week. Prerequisite, Botany 401-402. Mr. Transeau, Mr. Sayre.

The physiology of absorption and movement of water, salts, and gases in plants. The properties of water, solutions, and colloids; permeability, diffusion, absorption, transpiration, and the movement of water in plants.

416. Plant Physiology. Five credit hours. Winter Quarter. Three lectures and two two-hour laboratory periods each week. Prerequisite, Botany 415. Mr. Transeau, Mr. Sayre.

The physiology of nutrition, growth and movement; photosynthesis, other syntheses, enzymes, digestion, translocation, accumulation, assimilation, respiration, fermentation, growth and movement.

419. General Plant Pathology. Five credit hours. One Quarter. Autumn and Spring. Three lectures and two two-hour laboratory periods each week. Prerequisite, Botany 401-402. Mr. Stover.

An introduction to the study of the diseases of cultivated plants. The course includes such subjects as: the nature, importance, causes, symptoms, spread, classification, and control of plant diseases; the life history of pathogenic organisms; the course of a plant disease; and the effects of environmental conditions, cultural practices, and the history of the host species upon the occurrence and severity of diseases. A number of representative plant diseases of economic importance are studied in the field and in the laboratory.

421. Plant Microtechnic. Five credit hours. Spring Quarter. Two lectures and three two-hour laboratory periods each week. Prerequisite, Botany 401-402.

Principles and methods of killing, fixing, imbedding, sectioning, staining, and mounting plant materials for microscopic study.

***423. Economic Plant Geography.** Three credit hours. Spring Quarter. Three lectures each week. Not intended for major botany students. Such students should select Botany 619 and 620. Prerequisite, Botany 401. Mr. Waller.

The geographic distribution of economic plants and its effect on the business of the world and on the lives of people dependent upon the products of these plants.

FOR ADVANCED UNDERGRADUATES AND GRADUATES

601. Plant Ecology. Five credit hours. Autumn Quarter. Three lectures and one four-hour laboratory period each week. Prerequisites,

* Not given in 1927-1928.

Botany 401-402 and two Quarters of biological work. Not open to Freshmen and Sophomores. Mr. Transeau.

Lectures on the vegetation of the Eastern United States with special reference to the plant associations and formations of Ohio. Field work on the associations of the vicinity of Columbus and their successions. Reading of important literature.

602. Plant Ecology. Five credit hours. Spring Quarter. Three lectures and one four-hour laboratory period each week. Prerequisite, Botany 601. Mr. Transeau.

General principles of ecological plant geography. A discussion of associations and successions of the major divisions of the vegetation of North America. Assigned readings of the more important literature. Several Saturday field trips.

607. Principles of Taxonomy: Pteridophytes and Gymnosperms. Five credit hours. Autumn Quarter. Two lectures and six laboratory hours each week. Prerequisite, Botany 401-402 and one additional year of some biological subject. Mr. Schaffner.

A detailed study of phylogeny and evolutionary series based in floral structure and organography.

608. Principles of Taxonomy: Monocotyls. Five credit hours. Winter Quarter. Two lectures and six laboratory hours each week. Prerequisite, Botany 607. Mr. Schaffner.

A study of the groups of monocotyls with special consideration of the taxonomy of the grasses and of the lack of correlation between taxonomic characters and environment.

609. Principles of Taxonomy: Dicotyls. Five credit hours. Spring Quarter. Two lectures and six laboratory hours each week. Prerequisite, Botany 608. Mr. Schaffner.

A general consideration of all the groups of dicotyls, of the origin of angiosperms, and of the progressive or serial development of characters.

611. Evolution of Plants. Five credit hours. Spring Quarter. Lectures and assigned readings. Prerequisites, Botany 401-402 and one additional year of botany. Mr. Schaffner.

The progress of evolution in the plant kingdom with a general discussion of the problems and factors involved, including both the scientific and philosophical aspects of the subject.

619. Economic Botany. Five credit hours. Autumn Quarter. Three lectures and two two-hour laboratory periods each week. Prerequisites, Botany 401-402 and one additional year of biological work. Desirable antecedents, commercial geography, and plant and animal ecology. Mr. Waller.

The world's food resources are examined in the light of botanical problems involving geographic distribution of economic plants. A summary is made of the centers of production of food-producing plants and the relation of these centers to natural plant formations is discussed. Trips to various industrial concerns utilizing plant materials are combined with laboratory examination of plant products.

620. Economic Botany. Five credit hours. Winter Quarter. Four lectures and one two-hour laboratory period each week. Prerequisites, Botany 401-402 and one additional year of biological work. Desirable antecedents, commercial geography and plant and animal ecology. Mr. Waller.

The fiber and oil producing plants and the forest products are discussed in this course. The same ecological and economic principles discussed in the previous course are applied, and an analysis is made of trade relations of the products to natural environmental factors governing the distribution of the plants. Visits are made to the industrial establishments using the materials discussed.

633. Physiological Methods. Three credit hours. Winter Quarter. Three two-hour laboratory periods each week. Desirable antecedents, plant chemistry and plant microchemistry. Consult instructor before registering. Mr. Sayre.

A laboratory course of methods in plant physiology such as the determination of osmotic pressure; H-ion concentration and buffer action of plant juices; the swelling of plant colloids; permeability of plant membranes; carbon dioxide-oxygen ratios; and the measurement of transpiration, growth and environmental factors.

634. Plant Growth. Three credit hours. Spring Quarter. Three lectures each week. Consult instructor before registering. Mr. Sampson.

A study of the physiology of growth. Special attention is given to the inter-related effects of internal and external factors upon growth, movement and reproduction in plants. Bibliographies and reviews of literature.

635. Experimental Plant Genetics. Five credit hours. Spring Quarter. Two lectures and three two-hour laboratory periods each week. Spring Quarter in alternate years. Prerequisites, Botany 401-402 and two additional Quarters of biology including Zoology 403 (General Principles of Heredity). Mr. Schaffner.

Special emphasis will be placed on fluctuation and the varying expression of hereditary factors in respect to vegetative maturity, size, form, structure, and sexual states, through the influence of environment. Also problems of self and cross pollination and their practical application to selected types of economic plants.

***640. Plant Anatomy.** Five credit hours. Spring Quarter. Two lectures and three two-hour laboratory periods each week. Prerequisites, Botany 401-402 and two additional Quarters of biology.

The origin and development of the organs and tissue systems of vascular plants, and comparative study of the structures of roots, stems, leaves, flowers, and fruits. This course is a desirable antecedent to advanced work in physiology and pathology.

701. Special Problems: Taxonomy. Two to five credit hours. Prerequisites, Botany 401-402 and two additional Quarters of some biological subject. Mr. Schaffner, Mr. Transeau, Mr. Stover, Mr. Tiffany.

* Not given in 1927-1928.

702. Special Problems: Morphology. Two to five credit hours. Prerequisites, Botany 401-402 and two additional Quarters of some biological subject. Mr. Schaffner.

703. Special Problems: Physiology and Ecology. Two to five credit hours. Prerequisites, Botany 401-402 and two additional Quarters of some biological subject. Mr. Transeau, Mr. Sampson, Mr. Waller, Mr. Sayre, Mr. Tiffany.

704. Special Problems: Pathology and Mycology. Two to five credit hours. Prerequisites, Botany 401-402 and two additional Quarters of some biological subject. Mr. Stover, Mr. Humphrey.

705. Special Problems: Economic Botany. Two to five credit hours. Prerequisites, Botany 401-402 and two additional Quarters of some biological subject. Mr. Waller.

NOTE: TEACHING COURSES. For the Teaching Course in this department see the Department of Principles of Education, Course 705.

FOR GRADUATES

An undergraduate student shall not be permitted to take any course in the "800" group except by permission of the Graduate Council.

- 801. Research in Systematic Botany.
- 802. Research in Morphology and Cytology.
- 803. Research in Physiology and Ecology.
- 804. Research in Mycology and Plant Pathology.
- 805. Research in Genetics.
- 806. Research in Economic Botany.
- 810. Botanical Seminary.

For description of graduate courses in this department see the Bulletin of the Graduate School.

BUREAU OF EDUCATIONAL RESEARCH

Office, 201 Education Building

PROFESSORS BUCKINGHAM, ASHBAUGH, AND CLIFTON, AND
DEPARTMENT ASSISTANTS

The purpose of the Bureau of Educational Research is to promote the scientific investigation of educational problems both at the University and in the public schools of the State. It constitutes an agency for cooperative effort among all the school people of Ohio. The facilities of the Bureau are available to all students, faculty members, and school people of Ohio.

Library. The research library contains large quantities of material in the form of manuscripts, pamphlets, bulletins, reports, modern textbooks for elementary and high-school grades, and educational periodicals. This library is in charge of a reference librarian, and her services, together with the library material, will be utilized in the preparation of bibliographies and reports on problems presented by those engaged in educational work. This applies to students and faculty members as well as those engaged in the work of the public schools. Unless the problem requires extensive investigation, this service will be rendered gratis.

Courses. In order to make the resources of the Bureau serve for research purposes, students desiring to work in the Bureau may register in certain courses listed in the Departments of School Administration, Psychology, and Principles and Practice of Education. Courses must be approved by the head of the particular department and by the Director of the Bureau. Such students will be under the direction and supervision of the Bureau staff.

Research Problems. Students taking such courses will be given a practical problem upon which to work. There will be no regular recitation periods, but the student will be in a position to confer with the Bureau staff whenever advisable. According to the nature and exacting character of the problem and of the scholastic status of the student, he may be registered in either of two groups of courses, as follows:

MINOR PROBLEMS. Two to four credit hours. Investigation of minor problems.

Psychology 650

Principles and Practice of Education 650, 651, 652, and 653

School Administration 617, 618, 619, and 620

Vocational Education 620, 621, 622

MAJOR PROBLEMS. Three or more credit hours. Investigation of problems, leading to preparation of theses for advanced degrees.

Psychology 801

Principles and Practice of Education 850, 851, 852, and 853

School Administration 804, 805, 806, and 807

Vocational Education 801

NOTE: Descriptions of these courses will be found under the department announcements.

BUSINESS ORGANIZATION

Office, 311 Commerce Building

PROFESSORS WEIDLER, RUGGLES, HOAGLAND, MAYNARD, DICE, AND HELD,
ASSISTANT PROFESSORS PIKE, REEDER, DAVIS, BECKMAN, SHIVELY,
AND RICHARDS, MR. STARR, MR. POWER, MR. FAIR, AND
DEPARTMENT ASSISTANTS

FOR ADVANCED UNDERGRADUATES AND GRADUATES

604-605. Business Communications and Adjustment Practice. Three credit hours. Two Quarters. 604, Autumn, Winter, Spring; 605, Winter. Three recitations each week. Prerequisite, Economics 401-402. Mr. Held. The principles of effective writing; the requirements of a satisfactory business

letter, applications for positions; credit, collection, sales, and promotion correspondence; form letters and form paragraphs. An historical treatment of claims and complaints. Analysis of the present problem of adjustments in such fields as wholesaling, retailing, mail order business, etc. Current method of handling adjustments, by personal conference and correspondence. Administration of adjustments through a separate department; and association with collections or other departments.

620. Public Aspects of Industry. One credit hour. Winter Quarter. Mr. Ruggles.

621. Business Law: Contracts. Three credit hours. One Quarter. Autumn, Winter, Spring. Prerequisite, Economics 401-402. Mr. Power.

A course in the law of contracts for the student of business. A study of the fundamentals of legally binding agreements between persons, and their enforcement; including a study of the making of the contract, consideration, the effect of fraud, duress, undue influence, mistake, illegality, and the statute of frauds, interpretation, discharge and remedies.

623. Business Law: Agency and Sales. Three credit hours. One Quarter. Autumn, Winter, Spring. Prerequisite, Business Organization 621. Mr. Pike.

A course in the law of agency and sales for the student of business. The fundamentals of the law governing business transactions of persons through agents and the sale of personal property. A continuation of Business Organization 621.

625. Business Law: Negotiable Instruments. Three credit hours. One Quarter. Autumn, Winter, Spring. Prerequisite, Business Organization 621. Mr. Bowers.

A course in the laws governing bills of exchange, promissory notes and checks designed to guide the business man in his daily transactions with such instruments.

627. Business Law: Partnerships and Corporations. Three credit hours. Spring Quarter. Prerequisites, Business Organization 621 and 623. Mr. Pike.

A course designed to give the student of business a practical working knowledge of important laws governing the formation and operation of partnerships and corporations.

640. Corporate Organization and Control. Three credit hours. One Quarter. Autumn, Winter, Spring. Three recitations each week. Prerequisite, Economics 402. Mr. Richards, Mr. Donaldson.

Business enterprise; types; structure; incorporation; charter; by-laws; security certificates; indentures; organization meetings; directors and officers; duties; obligations; committees; control by stockholders and bondholders; proxies; voting trusts; minority stockholders' rights; expansion; intercorporate relations; consolidations; methods; advantages and disadvantages; community of interest; contractual relationships; reorganization; liquidation; legislation and court decisions affecting organization and management of business; Federal Trade Commission.

650. Corporation Finance. Five credit hours. One Quarter. Autumn, Winter, Spring. Two lectures and three quiz periods each week.

Prerequisite, Economics 402 or Business Organization 640. Mr. Hoagland, Mr. Richards, Mr. Donaldson.

Financial structure and problems of modern business corporations; common types of securities; promotion, including parts played by promoter, investment banker and his organization, syndicate, security dealer; determination, management, and distribution of surplus; financial problems of expansion, including changes in financial plans; securing funds for expansion; failure of corporations and resulting reorganization or liquidation; financial results of reorganization.

This course is not open to students who are taking Economics 616.

680. Industrial Organization and Management. Five credit hours. One Quarter. Autumn and Winter. Three lectures and two conferences each week. Prerequisite, Economics 402 or 404. Mr. Davis, Mr. Kaufman, and assistants.

The organization and management of industries, history, literature, and theory of industrial management. Kind and internal development of organization, dealing particularly with problems or interrelation of functions and the general duties of various functions. A general survey of the problems of the manufacturing or industrial executive within an organization without entering into detailed studies of specific problems of manufacturing.

684. Industrial Management Field Work. Three to six credit hours. One Quarter. Summer, Autumn, Winter, Spring. To be completed before taking advanced courses. Prerequisite, Business Organization 680. Mr. Davis, Mr. Kaufman, and assistants.

This work will probably carry pay and should be a regular, productive job in an industry. The job must carry the approval of the instructor and be followed by a report both from the employer and the student.

685. Material Organization and Management. Three credit hours. One Quarter. Autumn and Winter. Two lectures and one conference each week. Prerequisite, Business Organization 680 or 681. Mr. Davis, Mr. Kaufman.

The organization and management of the problem of materials in industries. A study of the organization and functions of the purchasing, stores, stores controlling departments and that part of the planning, accounting, production, and other departments which directly affect the control of materials. The problems involved and accepted methods of handling and moving materials.

Students will be required to do field work involving visits and inspection of industries and to write constructive reports and a term thesis.

686. Employment Organization and Management. Three credit hours. One Quarter. Autumn and Spring. Two lectures and one conference each week. Prerequisite, Business Organization 680 or 681. Mr. Davis.

The organization and management of the employment department and the personnel problems within an industry. Deals particularly with the functions and problems which come within the scope of employment manager; such as, hiring, force maintenance, industrial education and welfare. Does not deal with questions of labor organization

except in so far as is necessary for proper conception of these problems within an industry.

Students will be required to do field work involving visits and inspection of industries and to write constructive reports and a term thesis.

NOTE: Students taking Business Organization 686 as an elective must have Business Organization 680 as a prerequisite.

687. Production Organization and Management. Four credit hours. One Quarter. Winter and Spring. Two lectures, one conference, and two laboratory hours each week. Prerequisite, Business Organization 680 or 681. Mr. Davis, Mr. Kaufman, and assistants.

The problems of organization and management incident to the successful control of production in industry. Treats these problems largely from the point of view of a production manager. Coordinates personnel, equipment, and material to produce the necessary justification of organization in maximum production at least cost.

Students will be required to do field work involving visits and inspection of industries and to write constructive reports and a term thesis.

691. Office Organization and Management. Four credit hours. One Quarter. Autumn and Winter. Two lectures and one conference each week. Prerequisite, senior standing. Mr. Davis, Mr. Kaufman, and assistants.

Administration of offices. Methods of pay. Office manager. Standards, tools, forms, equipment, office machinery. Standard methods. Files, ticklers, mail handling, dictation, messengers. Engineering features. Special office problems of different departments.

Students will be required to do sufficient field work to write a term thesis based on actual investigation.

700. Marketing. Five credit hours. One Quarter. Autumn, Winter, Spring. Five hours lecture and quiz each week. Prerequisite, Economics 401-402. Mr. Beckman, Mr. Reeder, Mr. McGinnis.

The first part of the course will be devoted to the study of the marketing of raw materials, partially manufactured products and agricultural products. A critical consideration of marketing functions and institutions.

The second part of the course will be devoted to the study of the problems involved in marketing manufactured products. A study of the functions, methods, costs of marketing and marketing problems of the manufacturer, wholesaler or jobber, commission merchant, selling agent, broker, factor, and retailers of various types.

702. Marketing Problems and Market Analysis. Four credit hours. One Quarter. Autumn, Winter, Spring. Four hours lecture and quiz each week. Prerequisite, Business Organization 700. Mr. Weidler, Mr. Maynard, Mr. Beckman.

A consideration of the marketing problems of manufacturers, jobbers, selling agents, commission merchants, factors, brokers, agents, and retailers. Market analysis will be considered with reference to sources of information, procedure, and the use of results of such analyses in determining distribution policies and methods.

705-706. Retailing and Wholesaling. Four credit hours. Two Quarters. 705, Autumn, Winter, Spring; 706, Spring. Four lectures and discussion periods each week. Business Organization 705 or 706 may be

taken separately. Prerequisite to either 705 or 706, Business Organization 700. Mr. Weidler, Mr. Beckman.

The first Quarter's work will be devoted to a consideration of the organization and management of retail establishments. Store location; store organization; buying; receiving; stockkeeping; inventories; sales systems; store policies; services; expenses and profits; deliveries; personnel problems, etc.

The second Quarter deals with the wholesaler as a link in the chain of distribution; classes of wholesalers; tendencies in wholesaling; wholesale centers; radii of operation; the organization and management of wholesale establishments. Location; organization; stock control; purchasing; receiving; pricing; inventories and stock records; sales systems and organizations; handling orders; shipping; credits and collections; house policies; dealer helps and other services; expenses; profits, etc.

712. Salesmanship and Sales Management. Four credit hours. One Quarter. Autumn, Winter, Spring. Four lecture and discussion periods each week. Prerequisite, Business Organization 700. Mr. Maynard, Mr. Shively, Mr. Beckman, Mr. Reeder.

Knowledge of goods; prospecting; study of customers and their wants; buying motives; planning a sale; attitudes of buyers; conducting a sales talk; meeting objections; closing the sale; cultivation of personality.

The second part of the course is devoted to a consideration of problems in sales management; sales organization; sales planning and research; sales policies; sales methods; selecting and training salesmen; territories and quotas; compensation of salesmen; stimulation of salesmen; supervision of salesmen.

716. Principles of Advertising. Three credit hours. One Quarter. Autumn, Winter, Spring. Three lecture and discussion periods each week. Prerequisite, Business Organization 700 or senior standing in Journalism. Mr. Maynard, Mr. Shively.

A general survey of the field of advertising. The work of advertising; duties and methods of advertising departments and advertising agencies; securing and holding attention; headlines; effectiveness of different kinds of copy for the body of the advertisement; illustrative work; selection of type; color; display and form; laying out the advertisement; advantages of the leading forms of advertising; choice of media; testing values; cost of advertising; advertising campaigns; legal limits and restrictions on advertising.

725. Field Work in Marketing. Three to six credit hours. One Quarter. Autumn, Winter, Spring. Prerequisite, Business Organization 700. Mr. Weidler.

Before entering upon the fourth year of residence, an opportunity will be given to a limited number of students who have demonstrated their ability, to do one Quarter's work in business under the supervision of the instructional staff. The work will probably carry pay and must be a regular production position in the field of distribution. The position must have the approval of the instructor and a report will be made by both the student and the employer.

CHEMICAL ENGINEERING

Office, 100 Chemistry Building

PROFESSOR WITHROW

FOR ADVANCED UNDERGRADUATES AND GRADUATES.

701-702. Industrial Chemistry. Three credit hours. Autumn and Winter Quarters. Three lectures each week. Prerequisite or concurrent,

physical chemistry, except with special permission of the instructor. Mr. Withrow.

The fundamental lecture course in industrial chemistry, dealing with the problems of the chemical industries, and placing stress upon the economic questions involved in chemical manufacturing; materials of plant construction, as well as the engineering operations involved in chemical engineering, and the principles underlying the applications of chemistry and engineering to a selected number of chemical industries. The work of the Autumn Quarter deals especially with the inorganic industries, while that of the Winter Quarter is related to the organic industries.

CHEMISTRY

Office, 100 Chemistry Building

General Chemistry Office, 193 New Chemistry Building

PROFESSORS McPHERSON, HENDERSON, FOULK, EVANS, BOORD, AND MACK,
ASSISTANT PROFESSORS HOLLINGSWORTH, FRANCE, DAY, AND
LOOKER, AND DEPARTMENT ASSISTANTS

401. Elementary Chemistry. Five credit hours. One Quarter. Autumn and Winter. One lecture, one recitation, and two three-hour laboratory periods each week. For students who do not present chemistry as an entrance credit. Mr. Evans, Mr. Looker, and department assistants.

A general course in the chemistry of the non-metals. It should be followed by Chemistry 402.

402. Elementary Chemistry. Five credit hours. One Quarter. Winter and Spring. One lecture, one recitation, and two three-hour laboratory periods each week. For students who do not present chemistry as an entrance credit. Prerequisite, Chemistry 401. Mr. Evans, Mr. Looker, and department assistants.

This course is a continuation of the study of the non-metals and a survey of the chemistry of the metals. It should be followed by Chemistry 403.

403. Qualitative Analysis. Five credit hours. Spring Quarter. One lecture, one recitation, and two three-hour laboratory periods each week. For students who do not present chemistry as an entrance credit. Prerequisite, Chemistry 402. Mr. Evans, Mr. Looker, and department assistants.

A brief course in the systematic detection and separation of the metals and acids.

411. General Chemistry. Five credit hours. One Quarter. Autumn and Winter. One lecture, one recitation, and two three-hour laboratory periods each week. Prerequisite, an acceptable course in high-school chemistry. Mr. Evans, Mr. Day, and department assistants.

A general course in the chemistry of the non-metals, more advanced than Chemistry 401. It should be followed by Chemistry 412.

412. General Chemistry. Five credit hours. One Quarter. Winter and Spring. One lecture, one recitation, and two three-hour labora-

tory periods each week. Prerequisite, Chemistry 411. Mr. Evans, Mr. Day, and department assistants.

This course is a continuation of Chemistry 411, and includes the chemistry of the metals. It should be followed by Chemistry 418.

413. Qualitative Analysis. Five credit hours. Spring Quarter. One lecture, one recitation, and two three-hour laboratory periods each week. Prerequisite, Chemistry 412. Mr. Evans, Mr. Day, and department assistants.

A general course in qualitative analysis, dealing with the systematic separation and identification of the metals and acids. It also includes the application of the ionization theory, mass action law, and the principles of chemical equilibrium to qualitative analysis.

421-422-423. Quantitative Analysis. Four credit hours. Autumn, Winter, Spring Quarters. One recitation and nine laboratory hours each week. Prerequisites, acceptable courses in general chemistry, including qualitative analysis. Mr. Foulk, Mr. Hollingsworth, and department assistants.

This is the fundamental course in quantitative analysis, including the principles of gravimetric and volumetric analysis.

424. Problems in Quantitative Analysis. One credit hour. Spring Quarter. One quiz each week. Prerequisite, one Quarter of quantitative analysis. Mr. Foulk.

Simple problems in gravimetric and volumetric analysis.

447-448. Organic Chemistry. Three credit hours. Autumn and Winter Quarters. Three lectures each week. Prerequisites, acceptable courses in general and analytical chemistry. Mr. Boord.

This is the fundamental course in organic chemistry. The Autumn Quarter is devoted to a discussion of the aliphatic hydrocarbons and their derivatives while the Winter Quarter is given largely to a discussion of the coal tar compounds.

449-450. Organic Chemistry: Laboratory. Three credit hours. Autumn and Winter Quarters. Nine laboratory hours each week. Prerequisite or concurrent, Chemistry 447-448. Mr. Boord and assistants.

This course comprises the laboratory work naturally belonging with Chemistry 447-448. It consists in the preparation of a series of typical organic compounds, their purification, and a study of their properties.

FOR ADVANCED UNDERGRADUATES AND GRADUATES

662. Advanced General Chemistry. Three credit hours. Winter Quarter. Three lectures or recitations each week. Prerequisites, acceptable courses in general chemistry, qualitative analysis, and quantitative analysis. Mr. France.

An advanced course in general chemistry, stressing the more difficult topics touched upon in the elementary courses.

672. Inorganic Preparations. Three credit hours. Spring Quarter. Nine laboratory hours each week. Prerequisites, acceptable courses in general chemistry and quantitative analysis. Mr. Henderson.

The methods employed in the preparation of purely inorganic compounds; the chief classes of such compounds; and the laboratory preparation of a number of examples sufficient to develop reasonable technique in applying the methods and to illustrate the classes.

675. The Phase Rule. Three credit hours. Winter Quarter. Three meetings each week. Prerequisite, Chemistry 681-682-683. Mr. Henderson.

A study of the phase rule and its applications in chemical research.

681-682-688. Physical Chemistry. Three credit hours. Autumn, Winter, Spring Quarters. Three lectures each week. Prerequisites, acceptable courses in general chemistry, qualitative analysis, quantitative analysis, and organic chemistry; also an acceptable course in physics, and in calculus. Mr. Mack or Mr. France.

This is the fundamental course in physical chemistry, extending through three quarters. It is arranged for all students specializing in chemistry.

691-692-693. Physical Chemistry: Laboratory. Two credit hours. Autumn, Winter, Spring Quarters. Six laboratory hours each week. Prerequisite or concurrent, an acceptable course in physical chemistry. Mr. Mack or Mr. France, and assistants.

These three courses constitute the introduction to physicochemical measurements. Any one may be taken in any Quarter.

699. Minor Problems in Chemistry. Any Quarter. Three to fifteen credit hours. Conference, library, and laboratory work. Prerequisites, satisfactory courses in the field of the problem undertaken. A student may repeat this course and may spend all or any part of his time on it during a Quarter.

This course is designed to permit any properly qualified person to avail himself of the library and laboratory facilities of the department for carrying out a minor investigation or for adding to his knowledge and technique in some chemical subject.

A student may exercise entire freedom in his choice of instructor to conduct his work in this course, but as a rule, topics in organic chemistry will be under the direction of Mr. McPherson, Mr. Evans, Mr. Boord, and Mr. Looker; in inorganic chemistry, under Mr. Henderson, Mr. France, and Mr. Day; in physical chemistry, under Mr. Mack, Mr. France, and Mr. Day; and in analytical chemistry, under Mr. Foulk and Mr. Hollingsworth.

782. Chemical Bibliography. One credit hour. Winter Quarter. One conference each week. Prerequisites, acceptable courses in general, analytical, and organic chemistry. Mr. McPherson.

Designed to train the advanced student in the use of the chemical library, and to instruct him in the character of various chemical journals, dictionaries, reference books, and other sources of information pertaining to chemical subjects.

783. Chemical Biography. One credit hour. Spring Quarter. One lecture each week. Prerequisites, acceptable courses in general, analytical, organic, and physical chemistry. Mr. Henderson.

Designed to familiarize the advanced undergraduate student with the leading personages in chemistry, particularly those of recent and contemporary times, as well as with the available sources of information relating to such personages.

NOTE: TEACHING COURSES. For the Teaching Course in this department see the Department of Principles of Education, Course 710.

FOR GRADUATES

An undergraduate student shall not be permitted to take any course in the "800" or "900" group except by permission of the Graduate Council.

- 822. Seminary in Analytical Chemistry.
- 841. Advanced Organic Chemistry.
- 842. Advanced Organic Chemistry.
- 844. Advanced Organic Preparations: Laboratory.
- 845. Advanced Organic Preparations: Laboratory.
- 850. Seminary in Organic Chemistry.
- 851. Seminary in Organic Chemistry.
- 852. Seminary in Organic Chemistry.
- 853. Seminary in Organic Chemistry.
- 861-862-863. Physical Chemistry: Laboratory.
- 865. Atomic Structure.
- 866. Seminary in Inorganic Chemistry.
- 867. Seminary in Inorganic Chemistry.
- 891. Seminary in Physical Chemistry.
- 892. Seminary in Physical Chemistry.
- 930. Historical Chemistry.
- 950. Chemical Research.

For description of graduate courses in this department see the Bulletin of the Graduate School.

NOTE: For Industrial Chemistry Courses see the Department of Chemical Engineering.

CLASSICAL LANGUAGES AND LITERATURE

PROFESSORS OGLE, HODGMAN, ELDEN, AND BOLLING, MR SMITH

GREEK

Office, 102 Hayes Hall

401. Elementary Greek. Five credit hours. Autumn Quarter. Five recitations each week. No prerequisite. Mr. Bolling.

This course covers the outlines of the grammar with practice in the translation of simple selections (*The First Year of Greek* by J. T. Allen).

402. Elementary Greek. Five credit hours. Winter Quarter. Five recitations each week. Prerequisite, Greek 401 or its equivalent. Mr. Smith.

Reading in Xenophon's *Anabasis*, review and continuation of the grammar.

403. Plato. Five credit hours. Spring Quarter. Four recitations and one lecture each week. Prerequisite, Greek 402. Mr. Bolling.

Reading in the easier dialogues; the personalities of Socrates and Plato and their work.

404. Homer. Five credit hours. Autumn Quarter. Four recitations and one lecture each week. Prerequisite, Greek 402. Mr. Bolling.

Reading in the *Iliad* and *Odyssey*; the epic poetry of Greece.

FOR ADVANCED UNDERGRADUATES AND GRADUATES

601. Reading and Lectures. Three to five credit hours. One Quarter. Winter and Spring. Three to five meetings each week. Prerequisite, Greek 404 or the permission of the instructor. Mr. Bolling, Mr. Smith.

Study of the language, style, and works of some author or group of authors, chosen to meet the particular needs of the class. The course may consequently be repeated.

650. Greek Art. Three credit hours. Autumn Quarter. Three lectures each week. No prerequisite. Mr. Bolling.

Description and discussion of the monuments of the prehistoric period—the civilization of Crete and Mycene.

*651. Greek Art. Three credit hours. Winter Quarter. Three lectures each week. No prerequisite. Mr. Bolling.

The history of Greek vase painting.

652. Greek Art. Three credit hours. Spring Quarter. Three lectures each week. No prerequisite. Mr. Bolling.

The history of Greek sculpture.

NOTE: For Greek 650, 651, and 652 a knowledge of Greek is not required. These courses may be taken in any order, and students below junior standing may be admitted by special permission.

* Not given in 1927-1928.

701. Principles of the Historical Study of Language. Three credit hours. Spring Quarter. Three lectures each week. Prerequisite, junior standing. Mr. Bolling.

The elements of linguistic science together with an outline of the Indo-European family of languages.

720. Historical Greek and Latin Grammar. Three credit hours. Autumn Quarter. Prerequisite, ten credit hours of advanced Greek and Latin. Mr. Bolling.

NOTE: This course is the same as Latin 720.

LATIN

Office, 206 Hayes Hall

401. Elementary Latin. Five credit hours. Autumn Quarter. Five recitations each week. This course is for students who have not studied Latin. Mr. Hodgman, Mr. Smith.

Grammar and exercises.

402. Elementary Latin and Caesar. Five credit hours. Winter Quarter. Five recitations each week. Prerequisite, Latin 401. Mr. Ogle, Mr. Smith.

Continuation of grammar and beginning Caesar.

403. Caesar. Five credit hours. Spring Quarter. Five recitations each week. Prerequisite, Latin 402. Mr. Smith.

Continuation of Caesar.

404. Cicero, Orations. Five credit hours. Autumn Quarter. Five recitations each week. Prerequisites, Latin 401-403 or their equivalent in high school Latin. Mr. Smith.

Three orations.

405. Vergil. Five credit hours. Winter Quarter. Five recitations each week. Prerequisites, Latin 401-404 or their equivalent in high school Latin. Mr. Elden.

Readings from the Aeneid.

406. Cicero, Horace, Ovid. Five credit hours. Autumn Quarter. Five recitations each week. Prerequisites, Latin 401-405 or three years of high school Latin. Mr. Hodgman, Mr. Ogle.

Cicero, De Senectute; Horace, Odes; Ovid, Metamorphoses.

407. Horace, Livy, Gellius. Five credit hours. Winter Quarter. Five recitations each week. Prerequisite, Latin 406. Mr. Hodgman, Mr. Ogle.

Horace, Odes; Selections from Livy, or Gellius.

408. **Latin Comedy.** Five credit hours. Spring Quarter. Five recitations each week. Prerequisite, Latin 407. Mr. Hodgman.

Selected plays of Plautus and Terence.

409. **Sallust.** Five credit hours. Spring Quarter. Five recitations each week. Prerequisite, Latin 405. Mr. Smith.

Sallust, Jugurtha, or Cataline.

This course is not open to students who have credit for Latin 406-407.

501. **Catullus, Pliny, Tacitus.** Three credit hours. Autumn Quarter. Three recitations each week. Prerequisite, Latin 407. Mr. Elden.

Selections from Catullus, Pliny's Letters, or Tacitus.

This course is not open to students who have credit for Latin 601.

503. **Advanced Reading.** Three credit hours. Spring Quarter. Three recitations each week. Prerequisite, Latin 408. Mr. Hodgman.

The authors read in this course will be chiefly of the Silver Latin period and will vary from year to year.

This course is not open to students who have credit for Latin 603.

504. **Advanced Reading.** Three credit hours. Winter Quarter. Three recitations each week. Prerequisite, Latin 501. Mr. Elden.

Selections from Lucretius, Vergil, or Seneca.

This course is not open to students who have credit for Latin 604.

506. **Comparative Literature.** Three credit hours. Spring Quarter. Three lectures each week. No prerequisites. Mr. Elden.

This consists of lectures on Latin literature and its influence upon the literatures of France, Germany and England. No knowledge of Latin is required, and the course is open to students of both ancient and modern literatures. Students below junior standing may be admitted by special permission.

This course is not open to students who have credit for Latin 606.

507. **Roman Private Life.** Three credit hours. Autumn Quarter. Three lectures each week. No prerequisites. Mr. Elden.

Lectures, illustrated with lantern slides on the daily life and customs of the Romans, their business and family relations, their amusements, dress, homes, and household furniture. A knowledge of Latin is not required for this course, and it is open to all students who are interested in the subject. Students below junior standing may be admitted by special permission.

This course is not open to students who have credit for Latin 607.

508. **Roman Art and Archaeology.** Three credit hours. Winter Quarter. Three lectures each week. No prerequisites. Mr. Elden.

Lectures, illustrated with lantern slides, on the buildings and monuments of the ancient Roman world, with special reference to the city of Rome and its topography: also the architecture and decorative arts of the Romans, temples, palaces, private and

public buildings and their construction. A knowledge of Latin is not required for this course. Students below junior standing may be admitted by special permission.

This course is not open to students who have credit for Latin 608.

FOR ADVANCED UNDERGRADUATES AND GRADUATES

602. Latin Satire. Three credit hours. Autumn Quarter. Three recitations each week. Prerequisite, Latin 408. Mr. Elden.

Selections from the Satires of Horace or Juvenal.

609. Historical Latin Grammar: Inflections. Three credit hours. Winter Quarter. Three lectures each week. Prerequisite, Latin 503. Mr. Hodgman.

Sounds and inflections, and other topics essential to the understanding of the principles which govern the development of the Latin language. Latin 609 is deemed essential for those who make Latin a major or minor subject of study in graduate work, and is recommended for advanced undergraduate study.

610. Roman Religion. Three credit hours. Winter Quarter. Three lectures each week. Prerequisite, six Quarters of college Latin. Mr. Hodgman.

Lectures on the development of Roman religion, with readings from the Fasti of Ovid. This course is valuable as supplementing the courses on the life and literature of the Romans.

611. Roman Public Life. Three credit hours. Winter Quarter. Three lectures each week. Prerequisite, six Quarters of college Latin. Mr. Smith.

A brief study of the development of Roman governmental institutions, with special attention to their functions and character during the late republic and early empire.

612. Latin Prose Composition: First Course. Three credit hours. Winter Quarter. Three recitations each week. Prerequisite, six Quarters of college Latin. Mr. Hodgman.

Exercises and lectures on Latin idiom and style.

613. Latin Prose Composition: Second Course. Three credit hours. Spring Quarter. Three recitations each week. Prerequisite, Latin 612. Mr. Hodgman.

A continuation of Latin 612.

***614. Latin Prose Composition: Advanced Course.** Three credit hours. One Quarter. Three recitations each week. Prerequisite, Latin 613. Mr. Hodgman.

A study of the more difficult points of Latin idiom and style.

* Not given in 1927-1928.

615. Proseminary, I. Three credit hours. Winter Quarter. Three lectures each week. Prerequisite, six Quarters of college Latin. Mr. Elden.

Lectures on topics suggested by the study of Caesar and Cicero. Roman writing and Roman writing materials; story of the manuscripts; oratory and the orations; Letters of Cicero. Latin 615 is designed especially for students preparing to teach Latin.

616. Proseminary, II. Three credit hours. Spring Quarter. Three lectures each week. Prerequisite, six Quarters of college Latin. Mr. Elden.

Lectures on the life and works of Vergil, and his influence on modern literature. Latin 616 is designed especially for students preparing to teach Latin.

***620. Roman Elegy.** Three credit hours. Autumn Quarter. Prerequisites, Latin 501, 503, and 602, or their equivalent. Mr. Ogle.

621. Roman Tragedy. Three credit hours. Autumn Quarter. Prerequisites, Latin 501, 503, and 602, or their equivalent. Mr. Ogle.

***622. Roman Epic.** Three credit hours. Winter Quarter. Prerequisites, Latin 501, 503, and 602, or their equivalent. Mr. Elden.

***623. Advanced Reading Course in the Post-Augustan Epic.** Three credit hours. Spring Quarter. Prerequisite, either Latin 501, 503, 602, or equivalent. Mr. Elden.

624. Advanced Reading Course in Tacitus. Three credit hours. Spring Quarter. Prerequisite, either Latin 501, 503, 602, or equivalent. Mr. Elden or Mr. Ogle.

625. Advanced Prose Composition. Three credit hours. Spring Quarter. Prerequisite, Latin 612, 613 or their equivalent. Mr. Ogle.

626. Paleography. Three credit hours. Autumn Quarter. Prerequisite, six Quarters of college Latin. Mr. Elden.

Study of the different styles of writing. Textual criticism based largely on Latin manuscripts.

627. Vulgar Latin. Three credit hours. Winter Quarter. Prerequisite, six Quarters of college Latin, or French 801, or the consent of the instructor. Mr. Ogle.

The study of texts and inscriptions illustrating the development of the popular speech.

* Not given in 1927-1928.

*629. History of Literary Tradition. Three credit hours. One Quarter. Prerequisite, junior standing. Mr. Ogle.

Lectures and discussions dealing with the genesis and development of literary forms and motifs and their tradition down to the rise of modern literatures. The course will be so conducted that students of literature generally will be welcome.

720. Historical Greek and Latin Grammar. Three credit hours. Autumn Quarter. Prerequisite, ten credit hours of advanced Greek and Latin. Mr. Bolling.

NOTE: This course is the same as Greek 720.

NOTE: TEACHING COURSES. For the Teaching Courses in this department see the Department of Principles of Education, Courses 730 and 731.

FOR GRADUATES

An undergraduate student shall not be permitted to take any course in the "800" group except by permission of the Graduate Council.

- *801. Seminary in the Latin Epic.
- *802. Seminary in the Latin Epic (Continued).
- *803. Seminary in the Post-Augustan Epic.
- *804. Seminary in the Latin Lyric.
- *805. Seminary in the Latin Lyric (Continued).
- 806. Seminary in the Latin Satire.
- 807. Seminary in Latin Historiography.
- *808. Seminary in the Latin Drama.
- 809. Seminary in the Latin Philosophical Writers.
- *810. Seminary in Classical Archaeology.

For description of graduate courses in this department see the Bulletin of the Graduate School.

COMPARATIVE LITERATURE AND LANGUAGE

Courses formerly offered under the above heading will be found under the Departments of Classical Languages and Literature, and German.

DRAWING

(See Engineering Drawing)

* Not given in 1927-1928.

ECONOMICS

Office, 116 Commerce Building

PROFESSORS HAMMOND, HAYES, WOLFE, MARK, WALRADT, DICE, AND HELD.

MR. SMART, MISS STITT, MR. BOWERS, MR. DEWEY, MR. WILLIT,

MR. KAUFMAN, AND DEPARTMENT ASSISTANTS

401-402. Principles of Economics. Five credit hours. Two Quarters. Both 401 and 402 are given Autumn, Winter, Spring. Should precede all courses in economics. Not open to Freshmen or Seniors. Mr. Hayes, instructors, and assistants.

A study of the laws of production, exchange, distribution, and consumption of wealth, combined with an analysis of the industrial action of men as regards land, labor, capital, money, credit, rent, interest, wages, etc.

407. Principles of Economics for Students in Home Economics. Five credit hours. One Quarter. Autumn, Winter, Spring. Not open to Freshmen. Miss Stitt.

A survey of the entire field of economics with the needs of women students chiefly in mind. Either this course or 401-402 will meet the requirement in economics for students in Home Economics.

422. Economic Statistics. Three credit hours. One Quarter. Autumn, Winter, Spring. Two lectures and one two-hour laboratory period each week. Prerequisite, Economics 401-402. Mr. Smart, Mr. Dewey.

A general course in statistical methods dealing with the collection, presentation, and analysis of statistical data. The course will include consideration of schedules, table forms, ratios, and percentages, graphic charts, averages, and an introductory discussion of index numbers. A field problem illustrating the methods of a primary statistical study will be developed by the class.

This course is not open to students who have credit for Economics 622.

FOR ADVANCED UNDERGRADUATES AND GRADUATES

601-602-603. Principles and Problems of Economics. Three credit hours. Autumn, Winter, Spring Quarters. Open only to Seniors and graduate students who consider it advisable to take the course. Mr. Wolfe.

A general course covering the entire field of economics intended for those students who plan to do only one year's work in economics or who have not had time or opportunity to do work in this field prior to their fourth year. The scope of the work is the same as in Economics 401-402, but the lectures, readings, and recitations will be suited to the needs of maturer students.

This course is not open to students who have credit for Economics 401-402.

607-608. Financial History of the United States. Three credit hours. Autumn and Winter Quarters. Prerequisite, Economics 401-402. Mr. Walradt.

A study of the fiscal and monetary history of the country from colonial times to the present, with special reference to federal taxation, loans, and financial administration, currency, legislation, and the development of banking institutions.

610. Money and Banking. Five credit hours. One Quarter. Autumn, Winter, Spring. Five recitations each week. Prerequisite, Economics 401-402. Mr. Dice, Mr. Bowers, Mr. Willit, and assistants.

This course is a general survey of the field of money and banking. It is intended as an introductory study to the more technical courses in banking and finance and also to give a comprehensive view of the field of money and banking for those not primarily interested in the subjects.

Topics taken up are: coinage; the monetary systems of the United States and foreign countries; the gold exchange standard; credit; price levels; the development of banking; the commercial bank; the savings bank; the trust company; the National Banking system; the Federal Reserve system; the interrelations of our financial institutions; and the relation of the financial structure to the business and industrial system.

624. Principles of Insurance. Three credit hours. Autumn Quarter. Three lecture and discussion periods each week. Prerequisite, Economics 401-402. Mr. Bowers.

Risk; uses of insurance; kinds of insuring organizations; agency organization; underwriters' associations. Life insurance: kinds of policies and their uses; premiums; expenses; reserves; surrender values and loans; surplus and dividends; policy clauses; special forms of life insurance. Accident and health insurance. Fire insurance; insurable interest; protection of creditors; provisions of the standard policy and the principal standard endorsements; rate-making; reserves; settlement of losses. Marine, automobile, title and credit insurance; corporate bonding. State supervision.

This course is not open to students who have credit for Business Organization 760.

631. Public Finance. Three credit hours. One Quarter. Autumn and Spring. Prerequisite, Economics 401-402. Mr. Walratt.

A study of the problems connected with the debts, expenditures, revenues, and fiscal administration of national, state, and municipal governments.

632. Public Finance. Three credit hours. One Quarter. Autumn and Winter. Prerequisite, Economics 631. Mr. Walratt.

A continuation of Economics 631.

633. Public Finance. Three credit hours. Spring Quarter. Prerequisite, Economics 632. Mr. Walratt.

A continuation of Economics 632.

637. Industrial Relations. Three credit hours. Autumn Quarter. Prerequisite, ten hours in the principles of economics. Mr. Bowers.

The labor movement. Trade unions and employers' associations; their origin, growth, policies, and methods. Industrial disputes and modes of settling them; mediation, conciliation, and arbitration. Governmental intervention and its success at home and abroad. The recent movement to secure for labor a participation in the management of industry and to increase the interest of labor in the work of production.

638. Labor Legislation. Three credit hours. Winter Quarter. Prerequisite, ten hours in the principles of economics. Miss Stitt.

Efforts on the part of government to improve the condition of the laboring class and to increase the bargaining power of labor. The theory of the legal regulation of labor legislation and court decisions. Child labor and its legal prohibition or restriction. The legal regulation of the employment of women in industry. The problem of low-

paid labor and the legal minimum wage. The working day and the legal regulation of hours of labor. Efforts to secure by law safe and sanitary conditions for workers in factories, tenements, mines, and in transportation. The administration of labor laws.

639. Social Insurance. Three credit hours. Spring Quarter. Pre-requisite, Economics 638 or 624. Mr. Bowers.

Recent efforts at home and abroad to guarantee to the worker financial security against the hazards of industry. Accident insurance; employers' liability and workmen's compensation. Industrial health hazards and health insurance. Old age and invalidity insurance or pensions. The problem of unemployment and its prevention. Employment agencies, private and public. The regularization of employment; unemployment insurance.

643. Women in Industry. Four credit hours. Autumn Quarter. Four recitations each week. Prerequisite, Economics 401-402, or Sociology 401-402, or 403-404. Miss Stitt.

A study of the economic position of women. Social, industrial, and legislative problems created by their entrance into the field of industry. A survey of the occupations open to trained women.

644. The Standard of Living. Three credit hours. Spring Quarter. Three recitations each week. Prerequisite, Sociology 401-402, or 403-404, or Economics 401-402. Home Economics 609 should be taken with this course. Miss Mark.

A consideration of the content of the various standards of living in American society. Their economic and social significance. Problems in family budgets and retail buying.

651. International Commercial Policies. Three credit hours. Spring Quarter. Prerequisite, Economics 401-402. Mr. Held.

The theory of international trade; historic policies; mercantilism; free trade and protection. A study of the tariff policy of the United States with a comparative study of the policies of other countries. International trade as affected by the World War.

658-659. Economic Problems of Population. Two credit hours. Autumn and Winter Quarters. Prerequisite, Economics 401-402. Mr. Wolfe.

A critical survey of the population problem in its broader economic aspects. Population theories. Factors determining the growth of population. Population in relation to productive capacity, standards of living, distribution of income, commercial rivalry, and war. Population policies historically and critically considered.

661-662-663. Economic History of the United States. Three credit hours. Autumn, Winter, Spring Quarters. Prerequisite, Economics 401-402. Mr. Hammond.

The development of agriculture, trade, transportation, and manufactures from the comparatively simple system of colonial days to the complex economic organization of the present. The course endeavors to point out the interrelation which exists between this development and such problems as the tariff, merchant marine, commercial crises, labor, currency, and banking conditions.

FOR GRADUATES

An undergraduate student shall not be permitted to take any course in the "800" group except by permission of the Graduate Council.

- 801-802-803. History of Economic Thought.
- 810-811. Principles of Economics for College Teachers.
- 816-817-818. Modern Economic Theories.
- 819-820-821. French and German Economics.
- 822-823-824. Seminary in Economics and Statistics.
- 828-829-830. Research in Labor Problems and Legislation.
- 831-832-833. Railroad Rates and Rate Control.
- 835-836-837. Theories of Public Utility Rates in Europe and the United States.
- 839-840-841. Research in Corporation Economics and Trust Problems.
- 845-846-847. Research in Money and Banking.
- 851-852-853. Research in Public Finance.
- 854-855-856. Research in Theories and Problems of International Trade.
- 857-858-859. Research in Economic Theory.
- 860-861-862. Research in Statistics.

For description of graduate courses in this department see the Bulletin of the Graduate School.

EDUCATIONAL NURSING

(See Public Health)

ENGINEERING DRAWING

Office, 218 Brown Hall

PROFESSORS FRENCH, MEIKLEJOHN, TURNBULL, AND WILLIAMS, ASSISTANT
PROFESSORS FIELD, PAFFENBARGER, AND RUSS, MR. McMAN-
IGAL, MR. COOPER, MR. LUTZENBERGER, MR.
JONES, MR. GROVE, AND DEPART-
MENT ASSISTANTS

401. Principles of Engineering Drawing. Four credit hours. One Quarter. Autumn and Winter. One lecture and four two-hour laboratory periods each week. All instructors.

Orthographic projection, auxiliary projection, sections, applied geometry, lettering.

402. Principles of Engineering Drawing. Four credit hours. Winter Quarter. One lecture and four two-hour laboratory periods each week. Prerequisite, Engineering Drawing 401. All instructors.

Intersections, developments, working drawings, isometric and other pictorial representation, lettering.

403. Descriptive Geometry. Four credit hours. Spring Quarter. Four two-hour periods each week for lecture and laboratory. Prerequisite, Engineering Drawing 402. All instructors.

421. Engineering Drawing. Three credit hours. Autumn Quarter. One lecture and three two-hour laboratory periods each week. Prerequisite, Engineering Drawing 403. Mr. Williams, Mr. Paffenbarger, Mr. Russ, Mr. Cooper.

436. The Teaching of Engineering Drawing. Five credit hours. Winter Quarter. One lecture, one quiz, and three three-hour laboratory periods each week. Required in Industrial Arts Education. Prerequisite, Engineering Drawing 401. Mr. McManigal.

437. Projection Drawing. Two credit hours. Winter Quarter. Six laboratory hours each week. Home Economics, second year. Mr. Field.

438. House Planning. Three credit hours. One Quarter. Autumn and Spring. One lecture and six laboratory hours each week. Home Economics, third year. Prerequisite, Engineering Drawing 437. Mr. Field.

NOTE: TEACHING COURSES. For the Teaching Courses in this department see the Department of Principles of Education, Courses 750 and 751.

ENGLISH

Office, 103 Mendenhall Laboratory

PROFESSORS DENNEY, TAYLOR, McKNIGHT, GRAVES, KETCHAM, BECK, ANDREWS, AND PERCIVAL, ASSISTANT PROFESSORS HARBARGER, WILEY, SMITH, AND WALLEY, MR. CRAIG, MISS SNIFFEN, MR. MILLER, MISS ROBINSON, MRS. RHODES, MRS. HITCHCOCK, MR. FULLINGTON, MR. HATCHER, MR. YEAGER, MR. WILSON, MR. OWSLEY, MR. EMSLEY, MR. NESBITT, MR. POLLOCK, MR. KANE, MR. FRIERSON, AND DEPARTMENT ASSISTANTS

NOTE: Freshmen are restricted to English 401 and 438. Courses designed for the second year are: 441, 442, 405, 407, 427, 428, 429, 446.

(a) Courses in writing should be chosen in the following order: 401, 405, 407, 648, 657, 658.

(b) Courses in literature should be chosen in the following order: 483, 446, 441, 442, 636, 639, 653, 655, 656, 659, 667, 668, 670, 672.

(c) Courses in language should be chosen in the following order: 427, 428, 651, 652, 646.

Some deviations from this order and some omissions are permitted in each group.

000. Elementary Composition. No credit. Autumn, Winter, Spring Quarters. To this course are assigned students unable to maintain themselves in English 401, 410, or 411. Mr. Beck and assistants.

401. Composition and Reading. Five credit hours. One Quarter. Autumn, Winter, Spring. Five hours of recitation, quiz, reading and practice each week. Required in the College of Education. No prerequisite. Mr. Beck and instructors.

405. Theme Writing. Five credit hours. One Quarter. Autumn, Winter, Spring. Five hours of recitation, quiz, reading, and practice each week. Prerequisites, English 401 and 433. Mr. Beck, Mr. Craig.

407. Advanced Composition. Five credit hours. Autumn Quarter. Five hours of lecture, quiz, reading, and practice each week. Prerequisite, four Quarters in English. Special permission necessary. Class enrollment limited to thirty. Mr. Graves.

427. History of the English Language. Three credit hours. Winter Quarter. Lectures, quiz, and reports. Prerequisite, English 401. Mr. McKnight.

Especial attention is paid to the modern period, to the history of pronunciation and spelling and the development of the rules which govern modern English usage.

428. English Words. Three credit hours. One Quarter. Autumn and Spring. Prerequisite, English 401. Mr. McKnight.

A consideration of words, their sources, their uses, and the way modern meanings have been arrived at.

429. The English Bible. Five credit hours. One Quarter. Autumn, Winter, Spring. Five hours lecture, quiz, readings each week. Prerequisites, English 401 and 433. Mr. Hatcher.

433. Introduction to American Literature. Five credit hours. One Quarter. Autumn, Winter, Spring. Lectures, quiz, readings, reports. No prerequisites. Mr. Graves, Mr. McKnight, Mr. Beck, Mr. Smith, Mr. Walley, Mr. Craig, Miss Robinson, Mr. Fullington, Mr. Wilson, Mr. Owsley, Mr. Emsley, Mr. Pollock, Mr. Kane, Mr. Frierson.

The outline of the history will be given by lecture. The reading and criticism will be of Irving, Cooper, Bryant, and Poe; of Hawthorne, Emerson, Whittier, Longfellow, and Lowell; and of Walt Whitman; with a brief survey of recent literature.

441. Nineteenth Century Poetry: Romantic. Five credit hours. One Quarter. Autumn, Winter, Spring. Lectures, quiz, readings. Prerequisites, English 401 and 433. Mr. Taylor, Mr. Graves, Mr. Andrews, Mr. Percival.

Wordsworth, Shelley, Keats, and their contemporaries.

442. Nineteenth Century Poetry: Victorian. Five credit hours. One Quarter. Autumn, Winter, Spring. Lectures, quiz, readings. Pre-

requisites, English 401 and 433. Mr. Taylor, Mr. Percival, Mr. Walley, Mr. Miller.

Reading and criticism as far as possible complete of Tennyson and Browning. Some initial consideration will be taken of Fitzgerald, Arnold, Swinburne, Rossetti, Morris, and Meredith.

446. Nineteenth Century Prose. Five credit hours. One Quarter. Autumn, Winter, Spring. Lectures, quiz, readings. Prerequisites, English 401 and 433. Mr. Denney, Miss Sniffen.

Reading in Coleridge, Lamb, Landor, DeQuincey, Hazlitt, Carlyle, Arnold, Ruskin, Newman, Pater, Stevenson and in recent and contemporary essayists.

FOR ADVANCED UNDERGRADUATES AND GRADUATES

636. Eighteenth Century Poetry and Prose. Five credit hours. Autumn Quarter. Lectures, quiz, readings. Prerequisite, four Quarters in English. Mr. Percival.

A study of the classical, romantic, realistic and sentimental literature of the eighteenth century. Representative prose, poetry, and drama. Especial attention will be given to a study of the life and times of Dr. Samuel Johnson.

639. The Essay. Five credit hours. Spring Quarter. Lectures, critical study, quiz. Prerequisite, five Quarters in English. Mr. Beck.

The origin and development of the English essay as a literary type.

643. Literature and Composition. Five credit hours. Spring Quarter. Three lectures with conferences on individual work each week. Prerequisite, at least six Quarters in English. Special permission necessary. Mr. Frierson.

Recent writers, Kipling, Wilde, Wells, Shaw, Butler, Aldous Huxley, Chesterton, Masfield, and a few others will be read and discussed as a basis for creative and critical writing. Conferences on individual work.

646. Middle English. Three credit hours. Spring Quarter. Prerequisites, English 651 and 652. Mr. Smith.

Grammar and reading of selected texts.

651. Old English. Three credit hours. Autumn Quarter. Lectures, quiz, readings. Prerequisite, four Quarters in English. Mr. Bloomfield.

Grammar and reading of selected texts.

652. Old English Poetry. Three credit hours. Winter Quarter. Prerequisite, English 651. Mr. Smith.

Beowulf and other assigned texts.

653. Chaucer and His Principal Contemporaries and Successors. Five credit hours. Winter Quarter. Lectures, quiz, readings. Prerequisite,

uisite, five Quarters in English. Italian 609 and 610 are recommended as concurrent studies. Class enrollment limited to thirty. Mr. McKnight.

Chaucer's principal works are read. Consideration is also given to Gower, Wycliffe, Langland, the author of *Sir Gawayne and the Grene Knight*, *Oecleve*, *Lydgate*, *Barbour*, *James I of Scotland*, *Dunbar*, etc.

654. *English Medieval Literature to Chaucer*. Five credit hours. Autumn Quarter. Lectures, quiz, readings. Prerequisite, five Quarters in English. Mr. McKnight.

A study of epic poetry in early English, followed by a study of legends, romances, tales, and metrical histories, all done by means of modern English renderings.

655. *The Novel: Richardson to Scott*. Five credit hours. Winter Quarter. Lectures, quiz, readings. Prerequisite, five Quarters in English. Mr. Taylor.

The history and development of the novel in this period is given by lecture. Reading and criticism of Richardson, Fielding, Sterne, Jane Austen, and Scott.

656. *The Novel: Dickens to Meredith*. Five credit hours. One Quarter. Autumn and Spring. Lectures, quiz, readings. Prerequisite, five Quarters in English. Mr. Taylor.

The history and development of the novel in this period is given by lecture. Reading and criticism of Dickens, Thackeray, Trollope, George Eliot, Meredith, Hardy, and James.

657. *Versification*. Five credit hours. Spring Quarter. Lectures, reading, practice. Prerequisite, four Quarters in English including one Quarter-course in poetry. Open only to Juniors and Seniors. Special permission necessary. Class enrollment limited to thirty. Mr. Graves.

The theory of verse structure with a history of the principal English rhythms, and practice in verse composition.

658. *The Short Story*. Five credit hours. Winter Quarter. Lectures, quiz, readings. Prerequisite, four Quarters in English including English 405 or 407. Open only to Juniors and Seniors. Special permission necessary. Class enrollment limited to thirty. Mr. Graves.

Lectures on structure and form in the short story, with class reports on assigned readings, and practice in story writing.

659. *Milton and Dryden*. Five credit hours. Autumn Quarter. Four meetings each week and a fifth meeting at the option of the instructor. Prerequisite, six Quarters in English. Mr. Andrews.

Seventeenth century literature with special reference to Milton. The poetry of Milton, Donne, the Cavaliers, the church poets, and Dryden. The prose of Walton and the character books: Browne, Burton, and Bunyan. The Restoration dramatists.

664. The Celtic Renaissance. Five credit hours. Spring Quarter. Four meetings each week and a fifth meeting at the option of the instructor. Class enrollment limited to twenty. Mr. McKnight.

Subjects for study: The Ossianic literature of the eighteenth century, Lady Guest's translation of the Welsh *Mabinogion* and the English literary works inspired by the translation. The modern revival of ancient Irish story and the related modern literature by Yeats, Lady Gregory, Fiona Macleod, Synge, and others.

This course is not open to students who have credit for English 813.

667. Shakespeare: Histories and Tragedies. Five credit hours. Autumn Quarter. Two lectures, two quiz hours, one hour written criticism each week. Prerequisite, five Quarters in English. Italian 609 and 610 are recommended as concurrent studies. Mr. Denney.

668. Shakespeare: Comedies and Romances. Five credit hours. Winter Quarter. Two lectures, two quiz hours, one hour written criticism each week. Prerequisite, five Quarters in English. Italian 609 and 610 are recommended as concurrent studies. Mr. Denney.

670. Recent and Contemporary Drama. Five credit hours. Winter Quarter. Four meetings each week with special reading in lieu of the fifth meeting. Prerequisite, English 667 or 668. Mr. Andrews.

One or two plays of each of the leading dramatists since Ibsen will be read, the foreign plays in translation. The authors considered will be Ibsen, Strindberg, Hauptmann, Suderman, Schnitzler, Brieux, Hervieu, Wilde, Pinero, Jones, Barker, Galsworthy, Shaw, Rostand, Maeterlinck, Yeats, Synge.

672. Shakespeare's Contemporaries and Predecessors in English Drama. Five credit hours. Spring Quarter. Four meetings each week and a fifth meeting at the option of the instructor. Prerequisite or concurrent, English 667 and 668. Class enrollment limited to thirty. Mr. Denney.

705. Honors Course. Three credit hours. Autumn Quarter. A program of reading arranged for each student, with individual conferences and reports. Prerequisites: (1) full senior standing; (2) the record of "A" in at least half of his English courses and an average of "B" in the remainder; (3) the special permission of the professor under whose supervision the work is desired, and permission of the Department Committee on Honor. All instructors.

706. Honors Course. Three credit hours. Winter Quarter. A program of reading arranged for each student, with individual conferences and reports. Prerequisites: (1) full senior standing; (2) the record of "A" in at least half of his English courses and an average of "B" in the remainder; (3) the special permission of the professor under whose supervision the work is desired, and permission of the Department Committee on Honor. All instructors.

707. Honors Course. Three credit hours. Spring Quarter. A program of reading arranged for each student, with individual conferences and reports. Prerequisites: (1) full senior standing; (2) the record of "A" in at least half of his English courses, and an average of "B" in the remainder; (3) the special permission of the professor under whose supervision the work is desired, and permission of the Department Committee on Honor. All instructors.

NOTE: TEACHING COURSES. For the Teaching Course in this department see the Department of Principles of Education, Course 715.

FOR GRADUATES

An undergraduate student shall not be permitted to take any course in the "800" group except by permission of the Graduate Council.

- 801. History of the Short Narrative in English.
- 802. The Lyric.
- 805. Studies in Criticism.
- 806. Studies in the Drama.
- 807. The Novel: End of the Nineteenth Century.
- 808. Poetry: End of the Nineteenth Century.
- 809. The Twentieth Century Realistic Novel: Considered in Relation to its Origins, English and French.
- 810. English Usage.
- 811. Studies in the Period of Chaucer.
- 815. Studies in Seventeenth Century Literature.
- 816. Studies in Poetic Rhythm.
- 817. Studies in the Romantic Movement.
- 818. Studies in Eighteenth Century Literature.
- 819-820-821. Discussion of Dissertations.

For description of graduate courses in this department see the Bulletin of the Graduate School.

PUBLIC SPEAKING

401. Principles and Practice of Public Speaking. Five credit hours. One Quarter. Autumn and Spring. Prerequisite, English 401. Mr. Ketcham, Mr. Wiley, Mr. Yeager.

The principles of public speaking. The methods of securing the attention and maintaining the interest of an audience. Practice in the application of principles and methods to simple expository and argumentative addresses.

402. Debating. Five credit hours. One Quarter. Autumn, Winter, Spring. Prerequisite, English 401. Mr. Wiley, Mr. Yeager.

Practice in making and presenting oral arguments. The theory and practice of argumentation and debate. Short class debates on subjects of current interest.

407. Advanced Argumentation and Debate. Five credit hours. One Quarter. Autumn and Spring. Prerequisite, ten hours in public speaking. Mr. Ketcham.

A study of the great political and legal debates. Special applications of logic to argument. Practice in drawing briefs and presenting oral arguments on political and legal problems.

410. Advanced Debate Practice. Five credit hours. One Quarter. Autumn and Winter. Two practice periods each week. Special permission necessary. Mr. Wiley.

An advanced course for students who show special ability in debate.

414. Extempore Speaking. Five credit hours. Winter Quarter. Prerequisite, ten hours in public speaking. Mr. Wiley.

Practice in gathering and arranging speech material for extemporaneous addresses. Special exercises for developing clearness, concreteness, connotation, unity, and movement in extemporaneous speaking.

421. Masters of Public Address. Five credit hours. Winter Quarter. Lectures, readings, and oral reports. Prerequisite or concurrent, Public Speaking 401-402.

Consideration will be given to the life of the speaker, the events leading up to his principal public addresses, his subject matter and its treatment and his influence. The studies will include Demosthenes, Cicero, Burke, Erskine, Gladstone, Henry, Webster, Clay, Calhoun, Lincoln, Beecher, Phillips, Bryan, Wilson, and Lloyd George.

459. Principles and Practice of Oral Reading. Three credit hours. Winter Quarter. Three recitation periods each week. Prerequisite, junior or senior standing in the College of Education. Mr. Wiley.

Selections of verse and prose read in class by student. Short passages of speeches memorized and delivered. Attention paid to matters of voice, body, and interpretation of subject matter read or spoken. This is a course in the fundamentals of delivery, in which critical emphasis is laid on conversational directness, physical energy, intellectual enthusiasm, and sincerity. Intended primarily for teachers.

FOR ADVANCED UNDERGRADUATES AND GRADUATES

625. The Forms of Public Address. Five credit hours. One Quarter. Autumn and Spring. Prerequisite, Public Speaking 401-402. Mr. Ketcham.

A study of the methods of the foremost American and English orators. Class discussions. Practice in the use of different forms of public address. Formal orations;

inaugurals; nominating speeches; after-dinner speaking; discussions of current events; political, business, and social addresses.

This course is not open to students who have credit for Public Speaking 525.

651. Special Problems in the Theory of Public Speaking. Five credit hours. Spring Quarter. Prerequisite, ten hours in public speaking. Mr. Ketcham.

The function of the public speaker in reforms, revolutions, and public movements. Criticism and appreciation. Ideals, aesthetic standards in public speaking. Each student is required to make investigations in some special problem and to bring his results before the class for discussion.

NOTE: TEACHING COURSES. For the Teaching Course in this department see the Department of Principles of Education, Course 760.

ENTOMOLOGY

(See Zoology and Entomology)

EUROPEAN HISTORY

(See History)

FINE ARTS

Office, 201 Hayes Hall

PROFESSORS HOPKINS AND FANNING, ASSISTANT PROFESSOR ROBINSON, MISS KNAUBER, MR. FREY, MR. LEWIS, MISS JOYCE, MR. WISER, MR. RANNELLS, AND DEPARTMENT ASSISTANTS

NOTE: For special courses in Fine Arts for students in Architecture and Architectural Engineering see the Bulletin of the College of Engineering.

421. Elementary Freehand Drawing. Five credit hours. One Quarter. Autumn, Winter, Spring. Five two-hour laboratory periods each week. Miss Knauber, Mr. Lewis, Mr. Rannells, and assistants.

A technical course in the principles of drawing, with special regard for directness and facility. Practice in freehand perspective and values in monochrome.

423. Advanced Freehand Drawing. Five credit hours. One Quarter. Autumn, Winter, Spring. Four three-hour laboratory periods each week, with weekly problems. Prerequisite, Fine Arts 421 or 401-402-403. Miss Robinson, Mr. Frey, Mr. Rannells.

Drawing from still life and the antique as a means of expression, emphasizing the various possibilities and limitations of the black and white mediums, with exercises in modelling and problems in composition.

424. Drawing from Life. Five credit hours. One Quarter. Autumn, Winter, Spring. Four three-hour periods each week, with weekly problems. Prerequisite, Fine Arts 423. Mr. Wiser.

Drawing from the living model with lectures and problems in surface anatomy.

425. Advanced Life Drawing. Five credit hours. One Quarter. Autumn, Winter, Spring. Four three-hour periods each week with weekly problems. Prerequisite, Fine Arts 424. Mr. Wiser.

Drawing from life with lectures and problems in figure composition.

426. Elements of Art. Five credit hours. One Quarter. Autumn, Winter, Spring. Two lectures and three two-hour laboratory periods each week. Home Economics, first year. Open only to Home Economics students in the Colleges of Agriculture and Education. Miss Robinson, Miss Knauber, Miss Joyce, and assistants.

Study of the art expression of different peoples. Experiments in design, in line, form, and color. Problems related to the course of study of the Home Economics student.

431. Elementary Design. Five credit hours. One Quarter. Autumn, Winter, Spring. Two lectures and three two-hour laboratory periods each week. Prerequisites, Fine Arts 421 and 423. Miss Knauber, Miss Robinson.

The principles of pure design, with practice in the presentation of organic design problems. Lectures, conferences, and technical work.

432. Intermediate Design. Five credit hours. One Quarter. Autumn and Winter. Three three-hour periods each week, with outside requirements. Prerequisite, Fine Arts 431. Miss Joyce.

Special problems in design, theory, and presentation. Ceramic, textile, metallic, stone, wood, and combined materials are considered for decorative and structural elements.

433. Commercial Design. Five credit hours. Winter Quarter. Three three-hour periods each week, with weekly problems. Prerequisites, Fine Arts 432 and 424. Mr. Lewis.

A technical study of design from the commercial standpoint; advertising, posters, printing, etc.

434. Thesis Design. Five credit hours. One Quarter. Winter and Spring. Prerequisites, Fine Arts 424 and 432. To be arranged with the department. Mr. Hopkins, Mr. Fanning.

Individual attention to the solution of problems requiring a specialized study in one of the various fields of design.

435. Illustrative Drawing. Five credit hours. One Quarter. Autumn and Spring. Prerequisites, Fine Arts 425, and 441 or 442. Mr. Wiser.

Practice in illustrative drawing with study of the technique of pen and ink, pencil, wash, and other mediums. Problems in pictorial composition.

436. **Elements of Art: Advanced.** Three credit hours. One Quarter. Autumn, Winter, Spring. Three two-hour laboratory periods each week. Prerequisites, Fine Arts 426 or 421 and 431. Miss Joyce.

Fine arts in relation to dress and house problems. Drawings, criticisms, readings, and lectures.

441. **Water Color Painting.** Five credit hours. One Quarter. Autumn and Spring. Three three-hour periods each week, with weekly problems. Prerequisite, Fine Arts 431. Miss Knauber.

Painting from still life, models, and landscape. The purpose of this course is to develop the color sense and ability in the technique of water color painting. Lectures, laboratory work, and criticism.

442. **Oil Painting.** Five credit hours. One Quarter. Autumn, Winter, Spring. Four three-hour periods each week, with weekly problems. Prerequisite, Fine Arts 431. Mr. Hopkins.

Painting from still life with the object of developing the color sense and acquiring directness of presentation. Problems in the organization and execution of pictures.

443. **Advanced Oil Painting.** Five credit hours. One Quarter. Autumn, Winter, Spring. Prerequisite, Fine Arts 442. Mr. Hopkins.

Painting in oil from still life and the costume model. Advanced problems in picture making.

444. **Advanced Water Color Painting.** Five credit hours. One Quarter. Autumn and Spring. Three three-hour periods each week, with weekly problems. Prerequisite, Fine Arts 441. Miss Knauber.

A continuation of Fine Arts 441, with advanced problems in picture making.

451. **History of Classic Art.** Five credit hours. Autumn Quarter. Five lectures each week. Not open to Freshmen. Mr. Fanning.

The study of the art of Greece and Rome, with some consideration of Egypt, Mesopotamia, and Crete. Illustrated lectures, reading, and reports.

452. **History of Medieval Art.** Five credit hours. Winter Quarter. Five lectures each week. Prerequisite, Fine Arts 451. Not open to Freshmen. Mr. Fanning.

From the origins of Christian Art in Rome to the end of the Gothic Period. Illustrated lectures, reading, and reports.

453. **History of Renaissance Art.** Five credit hours. Spring Quarter. Five lectures each week. Prerequisite, Fine Arts 451. Not open to Freshmen. Mr. Fanning.

From the beginning of the Renaissance in Italy to the beginning of modern tendencies in Art in the seventeenth century. Illustrated lectures, reading, and reports.

454. **History of Modern Art.** Five credit hours. Spring Quarter. Five lectures each week. Not open to Freshmen or Sophomores. Miss Robinson.

Painting and sculpture from the eighteenth century to the present day. Lectures, reading, and reports.

461. Modelling. Five credit hours. One Quarter. Autumn, Winter, Spring. Three three-hour laboratory periods each week, with weekly problems. Prerequisite, Fine Arts 421. Mr. Frey.

This course includes the principles of cast making with practice.

462. Advanced Modelling. Five credit hours. One Quarter. Autumn, Winter, Spring. Three three-hour laboratory periods each week. Prerequisite, Fine Arts 461. Mr. Frey.

465-466-467. Technical Problems. Three to five credit hours. Autumn, Winter, Spring Quarters. Mr. Hopkins, Mr. Fanning, Miss Knauer, Mr. Frey.

This course is open, by permission of the department, to students who show particular ability in drawing, painting or sculpture, and who, having completed the other technical courses offered in the department, wish to pursue advanced problems in these fields under the supervision of the department.

470. Art Problems for Elementary Teachers. Five credit hours. Autumn Quarter. Three lectures and two two-hour laboratory periods each week. Miss Robinson.

A study of the nature of art expression with laboratory experiments in design and freehand drawing. This course is open only to students who intend to be teachers in the elementary schools. Special stress will be laid on the use of the blackboard in freehand drawing and on problems in design.

471. The Theory and Practice of Teaching Art. Five credit hours. Autumn Quarter. Five lectures each week. Prerequisites, Fine Arts 421 and 431. This course is prerequisite to Principles of Education 440 for all students majoring in Fine Arts.

The purpose of this course is to formulate an ideal course of study in Fine Arts. Practical problems which might have to be met in putting into effect such a course of study, are considered. Lectures, experiments, and observations.

476. Appreciation of the Plastic Arts. One credit hour. Autumn Quarter. Mr. Fanning.

A series of twelve lectures planned to give the layman an intelligent appreciation of architecture and sculpture.

477. Appreciation of the Pictorial Arts. One credit hour. Winter Quarter. Mr. Fanning.

A series of twelve lectures planned to give the layman an intelligent appreciation of painting and pictures.

478. Appreciation of the Popular Arts. One credit hour. Spring Quarter. Mr. Fanning.

A series of twelve lectures planned to give the layman an intelligent appreciation of the popular art expressions of the day.

FOR ADVANCED UNDERGRADUATES AND GRADUATES

***655. History of Seventeenth Century Art.** Five credit hours. Winter Quarter. Five lectures each week. Alternates with Fine Arts 656. Prerequisites, Fine Arts 453, and junior standing. Mr. Fanning.

The development of European art during the seventeenth century. Illustrated lectures, reading, and reports.

656. History of Oriental Art. Five credit hours. Winter Quarter. Five lectures each week. Prerequisite, junior standing. Mr. Fanning.

The study of Asiatic culture expressed by the historical development of architecture, sculpture and painting in Persia, India, China, and Japan. Illustrated lectures, reading, and reports.

657-658-659. Proseminary. Five credit hours. Autumn, Winter, Spring Quarters. Prerequisites, Fine Arts 451, 452, 453. Mr. Fanning.

Specialized study in important European Art periods. Ancient art subjects in Autumn; medieval in Winter; renaissance and modern in Spring. Lectures, round-table discussions, and presentation by each student of some special phase of research.

661-662-663. Advanced Technical Problems. Three to five credit hours. Autumn, Winter, Spring Quarters. Mr. Hopkins, Mr. Fanning, Mr. Frey.

This course is open, by permission of the department, to students who have shown particular ability in drawing, painting, or sculpture and who wish to pursue advanced problems in these fields under the supervision of the department.

FOR GRADUATES

An undergraduate student shall not be permitted to take any course in the "800" group except by permission of the Graduate Council.

801-802-803. Major Problems.

For description of graduate course in this department see the Bulletin of the Graduate School.

FRENCH

(See Romance Languages and Literatures)

GEOGRAPHY

Office, 213 Commerce Building

PROFESSORS HUNTINGTON, VAN CLEEF, PEATTIE, AND CARLSON,
AND DEPARTMENT ASSISTANTS

401. Principles of Geography. Five credit hours. One Quarter. Autumn, Winter, Spring. Five recitations each week. Mr. Carlson, Mr. Varvel, and assistants.

The geographic factors in environment: location, land, water, climate, plants, and

* Not given in 1927-1928.

animals; their relations to each other; and their importance as the physical basis of society.

This course is not open to students who have credit for Geography 402.

403. Economic Geography. Five credit hours. One Quarter. Autumn, Winter, Spring. Five recitations each week. Prerequisite, Geography 401. Mr. Van Cleef, Mr. Fischer, and assistants.

The fundamental industries, their chief products, and the influences of geographic environment thereon with special reference to North America.

***411. Climatology.** Four credit hours. Autumn Quarter. Three recitations and one two-hour laboratory period each week. Given biennially, alternating with Geography 421. Prerequisite, Geography 401. Mr. Peattie.

The controls of climate and a study of the climates of the world. Climatic cycles and their historical significance. The economic and social aspects of climate contrasts. Of especial interest to students in geography, economics, agriculture, and sociology.

421. Map Construction and Interpretation. Two credit hours. Spring Quarter. One recitation and one two-hour laboratory period each week. Given biennially, alternating with Geography 411. Prerequisite, junior standing or permission of the instructor. Mr. Carlson.

The principles of map-making; the merits of the more important map projections; the requisites of maps for various purposes; how to judge a map. The interpretation and representation of geographic data. The importance of maps as a means of presenting graphically social relationships and industrial and commercial facts.

422. Historical Geography and Commerce of the United States. Three credit hours. One Quarter. Autumn and Spring. Three recitations each week. Prerequisite, Geography 402 or 403. Mr. Huntington.

Geographic influences in the history of the United States. Location, topography, climate, and natural resources as factors in the distribution of population, the selection of occupations and the location of industries and trade routes. The development of the internal commerce of the United States, and the basis of her foreign trade.

This course is not open to students who have credit for Geography 601.

FOR ADVANCED UNDERGRADUATES AND GRADUATES

603. The Localization of Manufacturing Industries of the United States. Four credit hours. Spring Quarter. Four recitations each week. Prerequisite, Economics 401-402. Mr. Carlson, Mr. Fischer.

Geographic influences on American manufacturing. The distribution of the industry in the United States. The relation of land and population to the growth and variety of manufacturers. Factors affecting the localization of particular industries. The development of centers of general industry. Industrial districts. Classification and analysis of the manufacturing business of the United States as a whole, and special study of representative industries, as to labor, supply, sources, quantity, and value of material

* Not given in 1927-1928.

and power used, transportation facilities available, quantity and value of products, and problems of competition and markets. A term report will be required of each student.

604. Conservation of Natural Resources. Two credit hours. Autumn Quarter. Two recitations each week. Prerequisites, Geography 401 and Economics 401-402. Mr. Huntington.

The importance of the fundamental natural resources: agricultural, forest, mineral, and water. The exploitation of soils, forest, mines, etc., and the movement for their conservation. The reclamation of arid and swamp land, reduction of erosion, development of forestry, elimination of waste in mining, improvement of waterways, use of water power, and problems of water supply.

605. Economic and Social Geography of Ohio. Two credit hours. Winter Quarter. Two recitations each week. Prerequisites, Geography 403 and Economics 402 or Sociology 402. Mr. Huntington.

Geographic influences in the history of the state. A study of its agriculture, industries, and social conditions, together with the underlying physical, climatic, and other environmental factors that have contributed to the present development of the region.

606. Land Utilization. Two credit hours. Spring Quarter. Prerequisites, Geography 403 and Economics 402. Mr. Huntington.

Land as a natural resource. Its importance and classification. A discussion of agricultural, forest, mineral, and urban lands. Character and location as factors in utilization and value. The relation of classification to land policies and conservation policies. City planning, zoning, and suburban development.

621. Economic and Social Geography of Europe. Three credit hours. Autumn Quarter. Three recitations each week. Prerequisites, Geography 402 or 403 and Economics 402 or Sociology 402. Mr. Van Cleef.

A study of the human geography of Europe. The racial geography of the continent and the influences of geographic environment in the economic, social, and political progress of the various nations.

623. The Political Geography of South America. Three credit hours. Autumn Quarter. Three recitations each week. Prerequisites, Geography 403 and junior standing. Mr. Carlson.

A study of South America by countries. Location, topography, climate, and natural resources, influencing economic, social, and political development. The commercial relations of South America, with particular reference to the United States.

624. The Caribbean Region and the Panama Canal. Three credit hours. Winter Quarter. Three recitations each week. Prerequisites, Geography 403 and junior standing. Mr. Carlson.

The geography of the regions between the United States and South America. Their resources, industries, and products. The economic and social development of their people and the nature and relations of their trade, particularly with the United States. The commercial and strategic importance of the Panama Canal to both the Americas.

625. The Economic Geography of the Far East. Three credit hours. Spring Quarter. Three recitations each week. Prerequisite, Geography 403 and junior standing. Mr. Peattie.

The geographical aspects of the economic and political problems of the Pacific Ocean.

The ratio of land to population in the islands and lands adjacent to this ocean and the resultant economic, social, and political consequences. Their undeveloped resources and the opportunity for the investment of American capital. The present and prospective commercial relations of the United States with Asia and Australasia.

631. The Geography and History of Commerce. Three credit hours. Spring Quarter. Three recitations each week. Prerequisites, Geography 401 or 402 and junior standing. Mr. Peattie.

A study of the basis and development of commerce from the earliest times to the present. The successive leadership among the nations and the contributing factors. Geographic influences in present-day national commercial policies and in modern business.

632. World Industries and Commerce. Three credit hours. Autumn Quarter. Three recitations each week. Prerequisites, Geography 403, or Geology 401, or Geology 430, and junior standing. Mr. Carlson.

A survey of the world's important agricultural and manufacturing industries and the geographic factors influencing their location and development.

The exchange of commodities; the direction of movement; and the balance of trade. The relation of trade balances to industrial development. The possible world's markets for the American merchant.

634. Trade Centers and Trade Routes. Three credit hours. One Quarter. Winter and Spring. Three recitations each week. Prerequisites, Geography 403 and Economics 402. Mr. Van Cleef.

The world's principal ports, inland trade centers, and trade routes are considered in the light of both domestic and foreign trade development. A study of geographic factors in the establishment and growth of trade centers. The reciprocal relations in the development of the hinterland and trade centers.

The world's great trade routes, including land as well as water routes and their effect upon the shifting of trade centers. The significance of inland waterways in trade. The influence of the automobile, airplane, and airship upon routes. The work of a port. Planning for its future.

The part played by postal, telegraph, cable, wireless, and radio communication in the world's trade. Coaling stations, their location, strategic and economic importance.

641. Field Work in Geography and Commerce. One to three credit hours. One Quarter. Autumn and Spring. Prerequisites, eighteen hours of geography and senior standing. Mr. Huntington, Mr. Van Cleef, Mr. Peattie, Mr. Carlson.

Special investigations in the field of applied geography. Each student will be required to write up the results of his work in the form of maps, diagrams, and a final typewritten report. Assigned readings, conferences, and reports.

642. Special Problems in Geography and Commerce. Three credit hours. One Quarter. Autumn, Winter, Spring. Assigned readings, conferences, and reports. Prerequisites, eighteen hours of geography, senior standing, and consent of instructor. Graduates should take "800" courses. Not more than six hours credit may be derived from Geography 641 and 642. But three hours credit from these courses will be given in a single Quarter.

(a) Problems in Physiographic Geography. Mr. Peattie, Mr. Carlson.

(b) Problems in Climatology. Mr. Van Cleef, Mr. Peattie.

(c) Problems in Political and Historical Geography. Mr. Huntington, Mr. Peattie.

(d) Problems in Economic and Commercial Geography. Mr. Huntington, Mr. Van Cleef, Mr. Carlson.

661. Geographic Factors in Civilization. Three credit hours. Winter Quarter. Three recitations each week. Prerequisites, sixteen hours of geography and advanced standing in history or sociology. Mr. Peattie.

A study of the principles of historical geography. The story of geographic influences in social and cultural developments. Designed for advanced students of geography, history, and sociology.

FOR GRADUATES

An undergraduate student shall not be permitted to take any course in the "800" group except by permission of the Graduate Council.

801-802-803. Research in Geography and Commerce.

805-806-807. Seminary in Geography and Commerce.

808-809-810. Research in the Geography of Conservation and Land Utilization.

811. History of Geography.

815-816-817. Problems in the Geography of Foreign Commerce.

821-822-823. Problems in Industrial and Agricultural Geography.

831-832-833. Research in Physical Geography.

For description of graduate courses in this department see the Bulletin of the Graduate School.

GEOLOGY

Office, 103 Orton Hall

PROFESSORS BOWNOCKER AND CARMAN, ASSISTANT PROFESSOR SPIEKER,
MR. LAMBORN, MR. STOCKDALE, MISS STEWART, MR.
GLOCK, MR. HURST

SEQUENCE OF COURSES AND UNDERLYING SCIENCES. Students who desire to major in geology should start with General Geology 401 and 402.

Underlying sciences are: chemistry, physics, mineralogy, zoology, and botany. Chemistry, especially, should be taken as early in the course as possible. Engineering drawing also is desirable.

401. General Geology. Five credit hours. One Quarter. Autumn, Winter, Spring. Four recitations and one two-hour laboratory period each week. Saturday mornings (except in the Winter Quarter) must be kept open for field trips. With 402, this constitutes the first course in geology. All instructors.

A study of the surface features of the earth and how they were produced; an elementary study of minerals and rocks, and of topographic maps.

402. General Geology. Five credit hours. One Quarter. Autumn, Winter, Spring. Four recitations and one two-hour laboratory period

each week. Saturday mornings (except in the Winter Quarter) must be kept open for field trips. Prerequisite, Geology 401. All instructors.

A study of structural features and geological history of the earth; of representative fossils, and of topographic and geologic maps.

404. Glacial Geology. Five credit hours. Spring Quarter. Four recitations and one two-hour laboratory period each week. Saturdays must be kept open for field trips. Prerequisite, Geology 401-402. Mr. Glock.

A study of the glacial geology of North America. The first half of the Quarter will be given to lectures, assigned readings, and map work; the second half largely to field work and the preparation of reports.

406. Structural and Dynamical Geology. Five credit hours. Winter Quarter. Four recitations and one two-hour laboratory period each week. Prerequisites, Geology 401-402 or senior rank and Geology 415. Mr. Spieker.

A detailed study of the structural features of the earth's crust and of the forces which have produced these structures. This course includes much practice in the interpretation of geological maps.

407. Historical Geology. Five credit hours. Spring Quarter. Four recitations and one two-hour laboratory period each week. Saturdays must be kept open for field trips. Prerequisites, Geology 401-402 and 406, or senior rank and Geology 406. Mr. Carman.

A study of the geological history of North America to the close of the Paleozoic, its physical history, and life development. The course deals with the classification and distribution of the geological formations, especially those of Ohio, and with the characteristic fossils of each system.

415. Physiography. Five credit hours. Autumn Quarter. Four recitations and one two-hour laboratory period each week. Prerequisite, Geology 401-402, or senior rank. Mr. Glock.

A consideration of the origin, development, and interpretation of surface features and type physiographic forms.

420. Meteorology. Five credit hours. Spring Quarter. Four recitations and one two-hour laboratory period each week. No prerequisite. Mr. Stockdale.

A study of the elements of weather and weather forecasting. Special attention is given to Ohio.

FOR ADVANCED UNDERGRADUATES AND GRADUATES

608. Stratigraphic Geology of Ohio. Five credit hours. Autumn Quarter. Prerequisite, four Quarters of geology. Students intending to elect this course should consult the instructor before registering. Mr. Carman.

Field trips, lectures, and assigned readings. Field trips on Saturdays (entire day) while the weather permits.

The geological formations of central Ohio are studied in the field and those formations more distant from Columbus are studied by rock specimens and assigned

readings. This course is intended to acquaint the student with methods of field investigation.

This course is not open to students who have credit for Geology 405.

***610. Physiography of the United States.** Five credit hours. Winter Quarter. Four recitations and one two-hour laboratory period each week. Alternates with Geology 609. Prerequisites, four Quarters of geology, or of geology and geography, including Geology 415. Mr. Glock.

A study of the physiographic regions of the United States. The topographic form and physiographic history with the geologic history as a background. Designed to give the student of geology or geography a working knowledge of the physiography of the United States.

612. Special Problems. Three to five credit hours. All Quarters. Assigned readings, conferences, and reports. Prerequisites, four Quarters in geology and consent of the head of the department.

A study of special topics, conferences, and reports.

620. Introductory Paleontology. Three credit hours. Autumn Quarter. Two recitations and one two-hour laboratory period each week. Prerequisites, four Quarters of geology or of geology and zoology. Mr. Carman, Miss Stewart.

A study of the systematic classification of the animal kingdom as a means of becoming acquainted with the faunas that characterize the various geological formations. The course deals mainly with the generic and specific characters of the fossil invertebrates and their use in identifying and correlating geological formations.

This course is not open to students who have credit for Geology 408.

621. Introductory Paleontology. Three credit hours. Winter Quarter. Mr. Carman, Miss Stewart.

A continuation of Geology 620.

This course is not open to students who have credit for Geology 409.

622. Introductory Paleontology. Three credit hours. Spring Quarter. Mr. Carman, Miss Stewart.

A continuation of Geology 621.

This course is not open to students who have credit for Geology 410.

FOR GRADUATES

An undergraduate student shall not be permitted to take any course in the "800" group except by permission of the Graduate Council.

801. Advanced Historical Geology.

802. Advanced Historical Geology.

803. Advanced Historical Geology.

* Not given in 1927-1928.

804. Research Work.

805. Research Work.

806. Research Work.

For description of graduate courses in this department see the Bulletin of the Graduate School.

GERMAN

Offices, 2, 3, 4 Page Hall

PROFESSORS M. B. EVANS, EISENLOHR, AND BLOOMFIELD, ASSISTANT
PROFESSORS THOMAS AND FEISE, MR. ROESLER

401. Elementary German. Five credit hours. One Quarter. Autumn, Winter, Spring. Five recitations each week. All instructors.

The elements of German grammar; reading of easy prose; oral practice.

402. Elementary German. Five credit hours. One Quarter. Autumn, Winter, Spring. Five recitations each week. Prerequisite, German 401 or equivalent. All instructors.

The elements of German grammar; reading of easy prose; oral practice.

403. Intermediate German. Five credit hours. One Quarter. Autumn, Winter, Spring. Five recitations each week. Prerequisite, German 402 or equivalent. All instructors.

Reading of narrative prose; grammar review; oral and written practice.

404. Easy Classical Reading. Five credit hours. One Quarter. Autumn and Spring. Five recitations each week. Prerequisite, German 403 or equivalent. Miss Thomas.

Reading of (a) a classical drama supplemented by discussions and lectures on the structure of the drama, its characters, and its historical background, (b) other literature of the classical period or of the nineteenth century. Practice in speaking and writing German.

406. Science Reading. Five credit hours. Winter Quarter. Five recitations each week. Prerequisite, German 403 or equivalent. Mr. Eisenlohr.

Rapid reading of technical literature. This is preceded or accompanied by practice in word formation, word compounds, sentence structure. The object of the course is to give the student a reading knowledge of technical German.

Advanced German. Five credit hours a Quarter, or by permission of the department, three credit hours a Quarter. Autumn, Winter, Spring Quarters. Five (or three) recitations each week. Prerequisite, German 404 or 406 or equivalent. No student may take more than three courses in this group. All instructors.

A group of reading and practice courses. Three hours a week devoted to selected readings from eighteenth and nineteenth century authors. Two hours a week devoted

to practice in speaking and writing German. One course in this group is offered each Quarter, the reading selections varying from year to year.

415. Autumn Quarter, 1927. Lessing: Minna von Barnhelm, Emilia Galotti. Mr. Eisenlohr.

435. Winter Quarter, 1928. Short Story. Keller: Kleider machen Leute; Romeo und Julia auf dem Dorfe; Meyer: Gustav Adolfs Page; Saar: Der Steinklopfer; Storm: Karsten Kurator. Mr. Feise.

421. Spring Quarter, 1928. Schiller: Wallenstein. Miss Thomas.

476-477-478. Readings in Technical and Critical German Literature. Three credit hours. Autumn, Winter, Spring Quarters. Prerequisite: for undergraduates, one course in the group "Advanced German," and written recommendation from the department in which the student's major study lies; for graduates, written recommendation from the department in which the student's major study lies.

This is an advanced reading course primarily to afford graduate students an opportunity of reading the most important technical and critical material of their particular fields published in German, under the guidance of the German Department. Individual reading assignments will be selected by the department in charge of the major study in cooperation with the German Department. The course will be divided into three groups, one of which will be given each Quarter.

476. Autumn Quarter, 1927. Readings in Education. Mr. Röseler.

477. Winter Quarter, 1928. Readings in Science. Mr. Eisenlohr.

478. Spring Quarter, 1928. Readings in Literature and the Social Sciences. Mr. Feise.

FOR ADVANCED UNDERGRADUATES AND GRADUATES

Proseminary: Eighteenth and Nineteenth Century Literature. Three credit hours. Autumn, Winter, Spring Quarters. Three hours lecture and quiz each week. Prerequisite, six Quarters of German or equivalent. All instructors.

This group of courses is intended to serve as an introduction to a more intensive study of German literature. There will be informal lectures in German and English, discussions and reports. The list of authors to be studied will vary from year to year.

612. Autumn Quarter, 1927. Goethe: Faust. Mr. Evans.

614. Winter Quarter, 1928. Goethe: Wilhelm Meister; Dichtung und Wahrheit. Mr. Eisenlohr.

641. Spring Quarter, 1928. Selected dramas of Hauptmann and a study of recent tendencies in German drama. Mr. Feise.

655. Phonetics. Three credit hours. Autumn Quarter. Three hours lecture and quiz each week. No prerequisites. Not open to Freshmen and Sophomores.

Speech sounds with special reference to German, French, and English.

***675. The German Language.** Three credit hours. Winter Quarter. Three hours lecture and quiz each week. Prerequisite, six Quarters of German or equivalent.

The study of texts illustrating the history of the German language.

685. Advanced Composition. Three credit hours. Spring Quarter. Three hours lecture and quiz each week. Prerequisite, six Quarters of German or equivalent. Mr. Eisenlohr.

An advanced course in speaking and writing German, accompanied by a review of German syntax.

695. Minor Investigations. Three credit hours. Autumn, Winter, Spring Quarters. Open only on permission of the department. All instructors.

Investigations of minor problems in the various fields of German literature and philology.

NOTE: TEACHING COURSES. For the Teaching Course in this department see the Department of Principles of Education, Course 725.

FOR GRADUATES

An undergraduate student shall not be permitted to take any course in the "800" group except by permission of the Graduate Council.

***801. Advanced Middle High German.**

***805. Gothic.**

***810. Old High German.**

855-856-857. Seminary in German Literature.

For description of graduate courses in this department see the Bulletin of the Graduate School.

GREEK LANGUAGE AND LITERATURE

(See Classical Languages and Literature)

HISTORY

Offices, 207, 204, 211 and 304 University Hall

PROFESSORS WITTKE, KNIGHT, SIEBERT (RESEARCH), McNEAL, HOCKETT, AND COLE, ASSISTANT PROFESSORS WASHBURN, HILL, NOYES, AND LARSEN, MR. ROSEBOOM, MR. WEISENBURGER, MR. CLYDE, MR. TERHUNE, AND DEPARTMENT ASSISTANTS

Students who are especially interested in history are advised to complete the following subjects, or their equivalent, during their first six Quarters in the University.

* Not given in 1927-1928.

These subjects fulfill the Junior Division requirements for the B. A. degree, and meet the prerequisites for advanced work in the social sciences.

English Composition 401	5 hours
French or German 401-402, 403-404	20 hours
History 401-402, and 405-406	20 hours
Zoology and Geology	20 hours
Psychology 401-402	10 hours
Political Science or Economics	10 hours
Advanced History	10 hours

95 hours

In planning further work the student should consult the department in order that advanced courses may be properly correlated as well as adapted to his individual needs and tastes. Students who choose history as their major must obtain the advice of the department.

401. Modern European History to 1789. Five credit hours. One Quarter. Autumn, Winter, Spring. Five class meetings each week. All instructors.

A general account of the history of western Europe from 1500 to the French Revolution, with a preliminary survey of the late Middle Age. This course, with 402, is the introductory work in history, and is advised for all who expect to major in the department. Textbook, collateral readings, and discussions. One section of this course, with an enrollment limited to two hundred and fifty students, will be conducted, in the Autumn Quarter, by means of general lectures three times a week with small quiz sections on the other two days. See the Time Schedule for hours of lectures and quiz sections.

This course is not open to students who have credit for European History 401.

402. Modern Europe since 1789. Five credit hours. One Quarter. Autumn, Winter, Spring. Five class meetings each week. All instructors.

This course is a continuation of History 401, and is conducted by the same methods. One lecture session, limited to two hundred and fifty students, will be provided in the Winter and Spring Quarters. See Time Schedule.

This course is not open to students who have credit for European History 402.

403. History of the United States (1763-1850). Five credit hours. One Quarter. Autumn, Winter, Spring. Five class meetings each week. Open only to Freshmen in the Colleges of Education, and Commerce and Administration. This course, or 405, must precede all other courses in American history, except History 434 and 435. All instructors.

A study of the general political, constitutional and economic development of the United States from the beginning of the Revolutionary era to the end of the Jacksonian epoch. Textbook, collateral readings, and discussions.

This course is not open to students who have credit for American History 401 or 403.

404. History of the United States (1850-1925). Five credit hours. One Quarter. Autumn, Winter, Spring. Five class meetings each week.

Open only to Freshmen in the Colleges of Education, and Commerce and Administration. Prerequisites, American History 401 or 403, or History 403. This course, or History 405 and 406, must precede all other courses in American history, except History 434 and 435. All instructors.

A continuation of History 403.

This course is not open to students who have credit for American History 402 or 404.

405. General Survey of United States History (1763-1850). Five credit hours. One Quarter. Autumn, Winter, Spring. No prerequisites. Not open to Freshmen. All instructors.

A study of the general political, constitutional and economic development of the United States from the beginning of the Revolutionary era to the end of the Jacksonian epoch. Textbook, collateral readings, and discussions.

This course is not open to students who have credit for American History 401 or 403.

406. History of the United States (1850-1925). Five credit hours. One Quarter. Autumn, Winter, Spring. Five class meetings each week. Not open to Freshmen. All instructors.

A continuation of History 405.

This course is not open to students who have credit for American History 402 or 404.

411. Ancient History, Prehistoric and Oriental. Three credit hours. Autumn Quarter. Three class meetings each week. Not open to Freshmen. Mr. Larsen.

A course designed for those intending to teach ancient history in secondary schools. Together with the course in Greek and Roman history it furnishes a survey of the ancient field. Lectures, readings, and discussions.

412. Greek History. Five credit hours. Winter Quarter. Five class meetings each week. Not open to Freshmen. Mr. Larsen.

A course designed for students of the ancient classics and for those intending to teach history in the secondary schools. Lectures, readings, and discussions.

This course is not open to students who have credit for European History 405.

413. Roman History. Five credit hours. Spring Quarter. Five class meetings each week. Not open to Freshmen. Mr. Larsen.

A course designed for students of the ancient classics and for those intending to teach history in the secondary schools. Lectures, readings, and discussions.

This course is not open to students who have credit for European History 406.

414. Europe in the Middle Age, to 1100 A. D. Three credit hours. Autumn Quarter. Three class meetings each week. Not open to Freshmen. Mr. McNeal.

A general course in the history of Europe from the collapse of the Roman Empire to the Crusades. Lectures, readings, and discussions.

415. Europe in the Middle Age, from 1100 A. D. Three credit hours. Winter Quarter. Three class meetings each week. Not open to Freshmen. Prerequisite, History 414. Mr. McNeal.

416. History of the Christian Church to the Protestant Reformation. Five credit hours. Spring Quarter. Five class meetings each week. Prerequisites, two Quarters of European history. Mr. Siebert.

This course traces the development of the Christian Church from its origin to the Protestant Reformation, emphasizing the early influence of Judaism and Greek culture, the development of Catholicism, heresies, monasticism, and the rise of the papacy, together with early movements for reform. Lectures, readings, and discussions.

421. England to 1603. Five credit hours. Autumn Quarter. Five class meetings each week. Not open to Freshmen. Mr. Noyes.

A study of English social and political development during the Middle Age. With History 422, it constitutes an introduction to English history for those students who wish a general survey of the subject, and for those who desire a background for the study of English literature. Lectures, readings, and discussions.

This course is not open to students who have credit for European History 403.

422. England since 1603. Five credit hours. Winter Quarter. Five class meetings each week. Not open to Freshmen. Mr. Noyes.

An introductory course in English history during the Modern Period. The course is a continuation of History 421, but may be taken independently. Lectures, readings, and discussions.

This course is not open to students who have credit for European History 404.

423. Europe from 1815 to 1878. Five credit hours. Autumn Quarter. Five class meetings each week. Prerequisites, two Quarters of history. Mr. Washburne.

A study of the rise of the democratic idea and the principle of nationalism, together with the economic and social development during this period. The changes in international relations in central and western Europe are traced to the Congress of Berlin. Lectures, readings, and discussions.

This course is not open to students who have credit for European History 407.

424. Europe from 1878 to 1919. Five credit hours. Winter Quarter. Five class meetings each week. Prerequisites, two Quarters of history. Mr. Washburne.

A study of the European system following the decisions of the Congress of Berlin, with special emphasis on international affairs. The causes of the conflict of 1914, the main events of the World War and the armistice terms, preparatory to the Peace Conference, will be discussed. Lectures, readings, and discussions.

This course is not open to students who have credit for European History 408.

425. History of Modern Russia. Three credit hours. Winter Quarter. Three class meetings each week. Prerequisite, History 401 or 402, or European History 401-402. Mr. Clyde.

An introductory course designed to acquaint the student with the major developments in the modern history of Russia. The early period down to the Seventeenth Century will only be touched upon in broad outline. Emphasis will be laid on the period since Peter the Great, with special reference to Russian expansion and imperialism, the World War, and the subsequent revolutions. Lectures, readings, and discussions.

This course is not open to students who have credit for European History 410.

426. The Far East. Three credit hours. Autumn Quarter. Three class meetings each week. Not open to Freshmen. Mr. Clyde.

This is an introductory course designed to acquaint the student with major developments in the modern history of China and Japan, and with the contacts between these nations and the western world, with special reference to the events of the nineteenth and twentieth centuries. Lectures, readings, and discussions.

This course is not open to students who have credit for European History 616.

431. Political Parties in the United States. Five credit hours. Autumn Quarter. Five class meetings each week. Prerequisites, American History 401-402, or 403-404; or History 403-404, or 405-406. Mr. Cole.

The radical party of the Revolution; the origin and growth of national parties; the slavery issue in party politics; the effect of the Civil War upon parties; party development in recent American history, special attention being devoted to the influence of the new economic and social conditions in creating new parties and policies. Lectures, readings, discussions, and reports.

This course is not open to students who have credit for American History 405.

432. Leading Characters in American History. Five credit hours. Winter Quarter. Prerequisites, American History 401-402, or 403-404; or History 403-404, or 405-406. Mr. Hockett.

A study of the lives of a number of statesmen, educators, men of affairs, clergymen, and others; with special reference to the significance of their contributions to American life. Lectures, readings, discussions, and reports.

This course is not open to students who have credit for American History 414.

433. The Struggle for North America. Five credit hours. Spring Quarter. Five class meetings each week. Prerequisites, two Quarters of history. Mr. Roseboom.

The history of the transplanting of European culture and institutions to America. A comparative study of the colonizing methods of the Spanish, French, English, Dutch, Swedes, and Russians. The expansion of the colonies and the resulting international struggle for supremacy. Textbook, lectures, collateral readings, reports, and discussions.

This course is not open to students who have credit for American History 413.

436. History of Canada. Five credit hours. Spring Quarter. Five class meetings each week. Prerequisites, American History 401-402, or 403-404; or History 403-404, or 405-406. Mr. Wittke.

A general survey of Canadian history from the earliest times to the present. Special attention is given to the relations of Canada with the United States and with the mother country, and to a comparison of Canadian institutions and problems with our own. Lectures, readings, and discussions.

This course is not open to students who have credit for American History 411.

437. The History of Ohio. Three credit hours. Autumn Quarter. Three class meetings each week. Prerequisites, American History 401-402, or 403-404; or History 403-404, or 405-406. Mr. Roseboom.

A general survey of the history of Ohio, from its settlement and early developments to the present time, with more intensive study of the period since 1850. Lectures, readings, and discussions.

This course is not open to students who have credit for American History 412.

FOR ADVANCED UNDERGRADUATES AND GRADUATES

For *all* courses in this group, the prerequisite is at least junior standing and four Quarters in the social science field, of which at least two must be in history. Specific prerequisites are indicated in connection with each course. These courses are not open to Freshmen or Sophomores.

601. Introduction to Historical Research. Three credit hours. Autumn Quarter. Three class meetings each week. Prerequisites, four Quarters of history and senior standing. Required of candidates for the Master's degree. Mr. McNeal, Mr. Cole.

Instruction in the use of standard guides and indexes, followed by a study of the principal kinds of original sources and exercises in historical criticism and composition. During most of the Quarter, the class will be divided into two sections, one dealing with problems in the European field, the other with problems in the American field, according to the major interest of the student.

This course is not open to students who have credit for American History 601 or European History 646.

602. Hellenic Civilization. Three credit hours. Spring Quarter. Three class meetings each week. Prerequisites, four Quarters of European history. Mr. Larsen.

This course deals with the origin, development, and transmission of Greek culture. Lectures, readings, reports, and discussions.

This course is not open to students who have credit for European History 606.

***603. Roman Civilization.** Three credit hours. One Quarter. Three class meetings each week. Prerequisites, four Quarters of European history. Mr. Larsen.

This course deals with the origin, development, and transmission of Roman culture and civilization. Lectures, readings, reports, and discussions.

This course is not open to students who have credit for European History 607.

***604. French Civilization in the Middle Age.** Three credit hours. Spring Quarter. Three class meetings each week. Prerequisites, History 414 and 415, and two other Quarters of history. Advanced students from other departments admitted without these prerequisites with the consent of the instructor. Mr. McNeal.

France at the height of the Middle Age; the growth of the French monarchy, feudal and manorial institutions, the rise of towns, art and learning. Lectures, readings, and discussions.

This course is not open to students who have credit for European History 621.

605. Germany and Italy in the Middle Age. Three credit hours. Winter Quarter. Three class meetings each week. Prerequisites, History 414 and 415, and two other Quarters of history. Advanced students from other departments admitted without these prerequisites with the consent of the instructor. Mr. McNeal.

Lectures, readings, and discussions.

This course is not open to students who have credit for European History 622.

607. The Age of the Renaissance (1250-1527). Three credit hours. Autumn Quarter. Three class meetings each week. Prerequisites, European History 401-402, or History 401-402; and two other Quarters of history, or the history of education, or Fine Arts 452 and 453. Mr. Siebert.

This course deals with the rise of our modern civilization, the revolutionary change from the limited religious interest of the Middle Age through the revival of letters to the wide variety of interests in the outward world, manifested in the new painting, architecture, education, printing, science, geographical discoveries, etc. Lectures, collateral readings, and discussions.

This course is not open to students who have credit for European History 608.

608. The Period of the Reformation. Three credit hours. Winter Quarter. Three class meetings each week. Prerequisites, European History 401-402, or History 401-402; and two other Quarters of history, which may include historical courses in education or fine arts. Mr. Siebert.

This course deals with the religious reformational movements from the death of Dante (1321) to the end of the Council of Trent (1563), including the movements led by

* Not given in 1927-1928.

Wyclif, Huss, Luther, Calvin, and Zwingli, and the Counter Reformation within the Roman Catholic Church. Lectures, collateral readings, and discussions.

This course is not open to students who have credit for European History 609.

609. The Roman Empire, the Period of the Principate. Three credit hours. Autumn Quarter. Three class meetings each week. Prerequisites, four Quarters of European history. Mr. Larsen.

A study of the development of the Roman government during the transition from the Republic to the Empire and of the history and institutions of the Empire from Augustus to the period of confusion in the third century. Lectures, readings, reports, and discussions.

610. The Late Roman Empire. Three credit hours. Winter Quarter. Three class meetings each week. Prerequisites, four Quarters of European history. Mr. Larsen.

A study of the history and institutions of the Empire from Diocletian to Justinian. Lectures, readings, reports, and discussions. This course is the natural continuation of History 609.

611. Constitutional History of England to 1485. Three credit hours. Autumn Quarter. Three class meetings each week. Prerequisites, four Quarters of history. Mr. Siebert.

Designed for students who are interested in the origin and development of popular government, for those taking the Arts-Law course or expecting to enter the College of Law, and for graduates. Textbook, lectures, collateral readings, and discussions.

This course is not open to students who have credit for European History 604.

612. Constitutional History of England since 1485. Three credit hours. Winter Quarter. Three class meetings each week. Prerequisites, four Quarters of history. Mr. Siebert.

A continuation of History 611. Special emphasis will be given to the evolution of parliamentary government, constitutional liberties, the growth of the cabinet and party system, Catholic emancipation, electoral reform, the Irish question, and the rise of democracy. Textbook, lectures, collateral readings, and discussions.

This course is not open to students who have credit for European History 605.

613. England in the Tudor Period. Three credit hours. Winter Quarter. Three class meetings each week. Prerequisites, History 421, or European History 403 and two other Quarters of history, or at least junior standing with a major in history and a minimum of five Quarters in the social science field. Advanced students majoring in other departments admitted by special permission. Mr. Noyes.

An intensive study of England in the period of transition, emphasizing social and political conditions, together with a brief survey of contemporary Europe. Some attention will be given to the source material of the period. Lectures, readings, reports, and discussions.

This course is not open to students who have credit for European History 625.

614. England in the Stuart Period. Three credit hours. Spring Quarter. Three class meetings each week. Prerequisites, History 421, or European History 403 and two other Quarters of history, or at least junior standing with a major in history and a minimum of five Quarters in the social science field. Advanced students majoring in other departments admitted by special permission. Mr. Noyes.

An intensive study of England in the seventeenth century including the social, religious and political causes of the Civil Wars, and the struggle between King and Parliament, a consideration of the Commonwealth, the Restoration and the Glorious Revolution of 1688, and the relations of this period with the settlement of North America. The work will be based to a considerable extent upon the sources for the period. Lectures, readings, reports, and discussions.

This course is not open to students who have credit for European History 626.

***615. England from the Reform Bill of 1832 to 1867.** Three credit hours. Winter Quarter. Three class meetings each week. Prerequisites, History 422, or European History 404, and two other Quarters of history. Advanced students majoring in other departments admitted by special permission. Mr. Noyes.

This course, with History 616, aims to survey the field of English history from 1832 to the present time. In addition to political history and international relations, social and economic factors will receive special emphasis, including the effects of the Industrial Revolution, the humanitarian movement, the various reform measures, and the intellectual attainments of the Victorian age. Lectures, readings, and discussions.

This course is not open to students who have credit for European History 627.

***616. England since 1867.** Three credit hours. Spring Quarter. Three class meetings each week. Prerequisites, same as for History 615. Mr. Noyes.

A survey of recent and contemporary English history, with emphasis upon the social, political and international developments of the late Victorian and post-Victorian periods, including the movement for democracy, together with a consideration of England's part in the World War and reconstruction, and contemporary problems. Lectures, readings, and discussions.

This course is not open to students who have credit for European History 628.

621. Expansion of Europe to 1588. Three credit hours. Autumn Quarter. Three class meetings each week. Prerequisites, four Quarters of history. Mr. Washburne.

A discussion of the early contact of Europe with other countries; the period of discovery and colonization, the Portuguese empire in the East and the Spanish monopoly in the West. The survey extends to the collapse of the Iberian control of expansion by the destruction of the Armada. Lectures, readings, and discussions.

This course is not open to students who have credit for European History 601.

* Not given in 1927-1928.

622. Expansion of Europe to 1815. Three credit hours. Winter Quarter. Three class meetings each week. Prerequisites, four Quarters of history. Mr. Washburne.

A study of the rise of the chartered trade companies; the ascendancy of the Dutch; the contest between the Dutch and the English for commercial supremacy and the long struggle between the English and the French for commercial and maritime supremacy, with its resultant effects upon India and North America. The survey extends through the settlement at the end of the Napoleonic era. Lectures, readings, and discussions.

This course is not open to students who have credit for European History 602.

†623. Expansion of Europe from 1815 to the Present. Three credit hours. Three class meetings each week. Prerequisites, four Quarters of history. Mr. Washburne.

A discussion of the problems of expansion in the nineteenth and twentieth centuries; the partition of Africa, the development of India, the movement into the Southern Pacific, European interests in the Far East, modern imperialism after 1876 and its relation to the World War, with the resultant readjustment of territory. Lectures, readings, and discussions.

This course is not open to students who have credit for European History 603.

***624. The French Revolution and Napoleon.** Three credit hours. Spring Quarter. Three class meetings each week. Prerequisites, History 401-402, or European History 401-402, and two other Quarters of history. Advanced students from other departments admitted without these prerequisites with the consent of the instructor. Mr. McNeal.

This course is not open to students who have credit for European History 631.

625. The Third French Republic. Three credit hours. Autumn Quarter. Three class meetings each week. Prerequisites, same as for History 624. Mr. McNeal.

This course is not open to students who have credit for European History 632.

627. Diplomatic History of the Far East. Three credit hours. Spring Quarter. Three class meetings each week. Prerequisite, History 426. Mr. Clyde.

This course is an advanced detailed study of the international relations of Japan and China with the western world. The course covers major events in modern Far Eastern diplomacy and attempts to explain the policies of the so-called Great Powers in the Far East, with particular reference to Russia, Great Britain, the United States and Japan. The course covers the period from 1895 to the present. Lectures, readings, and discussions.

†628. Recent and Contemporary European History (1919-1926). Five credit hours. Five class meetings each week. Prerequisite, History 424, or European History 408. Mr. Washburne.

This course deals with the first phase of the reconstruction of Europe after the War, extending from the Armistice of 1918 to the entrance of Germany into the League

* Not given in 1927-1928.

† Not given during the academic year, 1927-1928.

of Nations, 1926. A study is made of the national and international problems involved in the attempted settlement of world conditions. It affords a survey of present-day Europe. Lectures, readings, and discussions.

629. The History of Modern Germany (1600-1914). Three credit hours. Spring Quarter. Prerequisites, four Quarters of history. Mr. Siebert.

A rapid survey of the development of modern Germany with emphasis upon the Lutheran revolt, the Thirty Years' War, the rise of Brandenburg, Germany *versus* Louis XIV, Frederick the Great, the humiliation of Germany by Napoleon Bonaparte, the regeneration of Germany, and the founding and development of the German Empire, to the World War. Lectures, collateral readings, and reports.

631. Constitutional History of the United States to 1837. Three credit hours. Winter Quarter. Three class meetings each week. Prerequisites, American History 401-402, or 403-404; or History 403-404, or 405-406; and two other Quarters in the social science field. Political Science 401 will be found a valuable adjunct to this course. Mr. Hockett.

Constitutional ideas of Americans in the Revolutionary Period, the formation of the federal Constitution; constitutional questions involved in the organization of the government, party controversies, and foreign relations; relations between the federal and state governments; the great decisions of the Supreme Court under John Marshall; the Missouri Compromise; the nullification episode. Lectures, discussions, and reports.

This course is not open to students who have credit for American History 602.

632. Constitutional History since 1837. Three credit hours. Spring Quarter. Three class meetings each week. Prerequisites, same as for History 631. History 631 or American History 602 is a good foundation and Political Science 401 a valuable adjunct. Mr. Hockett.

Constitutional aspects of the slavery struggle, the Civil War and Reconstruction; questions relating to the power of Congress to regulate interstate commerce, levy an income tax, control trusts, etc.; constitutional problems resulting from the acquisition of territory in the War with Spain; recent amendments to the Constitution. Lectures, discussions, and reports.

This course is not open to students who have credit for American History 603.

633. The Slavery Controversy in the United States. Three credit hours. Autumn Quarter. Three class meetings each week. Prerequisites, American History 401-402, or 403-404; or History 403-404, or 405-406; and two other Quarters in the social science field. Mr. Cole.

The ante-bellum South and its destruction; the Civil War in the light of the forces which tended to hasten or obstruct the clash of arms. Lectures, readings, and discussions.

This course is not open to students who have credit for American History 604.

634. Reconstruction and the New South (1863-1925). Three credit hours. Winter Quarter. Three class meetings each week. Prerequisites,

same as for History 633. History 633 affords a good foundation. Mr. Cole.

The aftermath of the slavery struggle as traced in the reconstruction of the Southern States and in the readjustment of society and of the states to the new status of the negro, and to the economic forces of the last half century. Lectures, readings, reports, and discussions.

This course is not open to students who have credit for American History 605.

635. American Diplomacy to the Close of the Civil War. Three credit hours. Winter Quarter. Three class meetings each week. Prerequisites, American History 401-402, or 403-404; or History 403-404, or 405-406; and two other Quarters in the social science field. Mr. Cole.

The foreign relations of the United States, beginning with the diplomacy which resulted in the establishment of independence and including such subjects as the struggle for neutral rights and commercial recognition, the extension of territory on the continent, the origin of the Monroe Doctrine, and the international controversies of the Civil War. Lectures, discussions, and reports.

This course is not open to students who have credit for American History 606.

636. American Diplomacy since the Civil War. Three credit hours. Spring Quarter. Three class meetings each week. Prerequisites, same as for History 635. Mr. Knight.

Problems in the diplomacy of the United States resulting from the Civil War, the development of the Monroe Doctrine, the acquisition of dependencies, relations with Latin America and the Orient, arbitration, the Isthmian Canal, and neutral rights during the Great War in Europe. Lectures, discussions, and reports.

This course is not open to students who have credit for American History 607.

637. Recent History of the United States (1875-1900). Four credit hours. Autumn Quarter. Four class meetings each week. Prerequisites, American History 401-402, or 403-404; or History 403-404, or 405-406; and two other Quarters in the social science field. Economics 401 and 402 will be found a valuable adjunct. Mr. Knight.

An intensive study of the political, constitutional, industrial, and social life of the nation and states from the close of the Reconstruction Period to the Spanish-American War. It includes a consideration of new applications of the Constitution, industrial development, and third party movements. Lectures, discussions, and reports.

This course is not open to students who have credit for American History 608.

638. Recent History of the United States (1900-1925). Four credit hours. Spring Quarter. Four class meetings each week. Prerequisites, same as for History 637. Mr. Knight.

An intensive study of the political, constitutional, industrial, and social life of the nation since the Spanish-American War. It includes the entry and participation of the United States in world politics, third party movements, rise of the new democ-

racy, the World War and its aftermath as affecting this country. Lectures, discussions, and reports. This course is the natural continuation of History 637.

This course is not open to students who have credit for American History 609.

639. The Influence of Racial Groups upon United States History. Five credit hours. Autumn Quarter. Five class meetings each week. Prerequisites, American History 401-402, or 403-404; or History 403-404, or 405-406; and two other Quarters in the social science field. Mr. Wittke.

The share of different immigrant groups in the building of the nation, from the colonial period to the present, with special emphasis on the influence of immigration upon American political, economic, social and cultural development. Lectures, readings, and discussions.

This course is not open to students who have credit for American History 611.

640. The Pioneer in American History to 1812. Five credit hours. Winter Quarter. Five class meetings each week. Prerequisites, American History 401-402, or 403-404; or History 403-404, or 405-406; and two other Quarters in the social science field. Mr. Hockett.

Westward expansion from the Atlantic Coast and the reasons for it; effects of the American environment; struggle with the French and Indians; plans of the British Government for the Mississippi Valley; the results of the Revolution; life of the pioneers. Lectures, discussions, and reports.

This course is not open to students who have credit for American History 612.

641. The Pioneer in American History since 1812. Five credit hours. Spring Quarter. Five class meetings each week. Prerequisites, same as for History 640. History 640 affords a good introduction. Mr. Hockett.

The rise of new communities; their social, economic and political development and influence on national politics and institutions; trans-Mississippi exploration; the fur trade of the Far West; territorial acquisitions; discoveries of gold and silver; trans-continental railways; Indian wars; disappearance of the frontier. Lectures, discussions, and reports.

This course is not open to students who have credit for American History 613.

651. The Great Historians, to the Nineteenth Century. Three credit hours. Winter Quarter. Prerequisites, four Quarters of history, and senior standing. Required of candidates for the Doctor's degree. Mr. McNeal, with cooperation of other members of the department.

A study of the leading historical writers and schools of Europe, with selected readings from representative writers.

652. The Great Historians of the Nineteenth Century. Three credit hours. Spring Quarter. Prerequisites, History 651, four other Quarters of history, and senior standing. Required of candidates for the Doctor's

degree. Mr. Hockett, with cooperation of other members of the department.

A study of the leading European and American writers and schools of the last hundred years.

705-706-707. Honors Course. Three to five credit hours. Autumn, Winter, Spring Quarters. Informal conferences, the intent being to allow full scope to the initiative of the student. Prerequisites, senior standing and forty hours of credit in history, with the record of "A" in at least half of the History courses and an average of "B" in the remainder. At least two Quarters required of candidates for the degree of Bachelor of Arts with Distinction in History. Mr. Wittke, with the cooperation of other members of the department.

A special topic is assigned to each student each Quarter, and results are tested by the requirement of theses and a special examination. Inability to attain a grade of "B" in this course will be a disqualification for special honors.

NOTE: TEACHING COURSES. For the Teaching Course in this department see the Department of Principles of Education, Course 700.

FOR GRADUATES

An undergraduate student shall not be permitted to take any course in the "800" group except by permission of the Graduate Council.

802-803-804. Seminary in American History.

806-807-808. Seminary in European History.

For description of graduate courses in this department, and for the requirements for advanced degrees, see the Bulletin of the Graduate School.

HISTORY OF EDUCATION

Office, 204 Education Building

PROFESSORS ANDERSON AND GOOD, ASSISTANT PROFESSOR
ECKELBERRY, AND DEPARTMENT ASSISTANT

401. The History of Elementary Education. Five credit hours. Winter Quarter. Five lectures each week. Required of students preparing to teach in elementary schools. Mr. Eckelberry.

This course is not open to students who have credit for History of Education 404 or 405.

403. History of Pre-Renaissance Education. Three credit hours. One Quarter. Autumn, Winter, Spring. Three lectures each week. Prerequisite, one course in European history, philosophy, or psychology. Mr. Good, Mr. Eckelberry.

404. The History of Modern Education, I. Three credit hours. One Quarter. Autumn, Winter, Spring. Three lectures each week. Required in the College of Education. Prerequisite, one course in European his-

tory, philosophy, or psychology. Open to Juniors and Seniors. Mr. Anderson, Mr. Good, Mr. Eckelberry, Miss Kamber.

405. The History of Modern Education, II. Three credit hours. One Quarter. Autumn, Winter, Spring. Three lectures each week. Required in the College of Education. Prerequisite, one course in European history, philosophy, or psychology. Open to Juniors and Seniors. Mr. Anderson, Mr. Good, Mr. Eckelberry, Miss Kamber.

FOR ADVANCED UNDERGRADUATES AND GRADUATES

601. Educational Classics. Four credit hours. Winter Quarter. Four lectures each week. Open to Juniors, Seniors, and graduate students. Mr. Anderson.

Readings in Plato, Aristotle, Plutarch, Quintilian, Montaigne.

This course is not open to students who have credit for History of Education 350 and 351.

602. Educational Classics. Four credit hours. Spring Quarter. Four lectures each week. Open to Juniors, Seniors, and graduate students. Mr. Anderson.

Readings in Comenius, Locke, Rousseau, Pestalozzi, Herbart, Froebel.

605. History of Education in the United States. Two credit hours. Winter Quarter. Two lectures each week. Open to Juniors, Seniors, and graduate students. Mr. Anderson.

606. History of Education in the United States. Two credit hours. Spring Quarter. Two lectures each week. Open to Juniors, Seniors, and graduate students. Mr. Anderson.

607. History of Industrial Education. Two credit hours. Winter Quarter. Two lectures each week. Open to Juniors, Seniors, and graduate students. Mr. Anderson.

608. History of the American High School. Two credit hours. Autumn Quarter. Two lectures each week. Open to Juniors, Seniors, and graduate students. Mr. Eckelberry.

An historical and comparative study of the American high school.

609. Present-Day Problems in Education, I. Two credit hours. Spring Quarter. Two lectures each week. Open to Juniors, Seniors, and graduate students. Mr. Good.

A review in the light of their history of the most noteworthy of recent attempts to solve the most urgent problems in elementary and secondary school education.

***610. Present-Day Problems in Education, II.** Two credit hours. Spring Quarter. Two lectures each week. Open to Juniors, Seniors, and graduate students.

An historical study of attempts at a solution of the more urgent educational problems of today. A continuation of History of Education 609.

611. The History of Education in Ohio. Two credit hours. Autumn Quarter. Prerequisite, History of Education 405. Open to Juniors, Seniors, and graduate students. Mr. Eckelberry.

A study of the development of elementary, secondary and higher education in Ohio as related to the political, social and economic development of the state.

613. Comparative Education. Two credit hours. Autumn Quarter. Two lectures each week. Open to Juniors, Seniors, and graduate students. Mr. Good.

A survey with historical introduction, of existing systems of elementary and secondary education in Denmark, Germany, and two or three of the United States.

This course is not open to students who have credit for History of Education 603.

614. Comparative Education. Two credit hours. Spring Quarter. Two lectures each week. Open to Juniors, Seniors, and graduate students. Mr. Good.

A survey, with historical introduction, of existing systems of education in England and France.

This course is not open to students who have credit for History of Education 604.

617. Great Teachers. Two credit hours. Spring Quarter. Two lectures each week. Mr. Good.

Comparative and historical studies of the personalities, methods, lives, and times of several eminent teachers: Socrates, Plato, Jesus, Quintilian, St. Augustine, Abelard, Vittorino, Melancthon, Agassiz, Kold, Arnold, Silliman, and others.

FOR GRADUATES

An undergraduate student shall not be permitted to take any course in the "800" group except by permission of the Graduate Council.

801. Seminary in the History of Education.

***805. A Survey of Source Material and of General Literature in the Field of the History of Education Among the Ancient Greeks.**

***806. A Survey of Source Material and of General Literature in the Field of the History of Education in Western Europe during the Roman and Medieval Periods.**

* Not given in 1927-1928.

807. A Survey of Source Material and of General Literature in the History of Education from the Beginning of the Italian Renaissance to the Middle of the Eighteenth Century.

*808. A Survey of Source Material and of General Literature in the History of Education from the Middle of the Eighteenth Century.

809. Research in the History of Education.

For description of graduate courses in this department see the Bulletin of the Graduate School.

HOME ECONOMICS

Office, 220 Campbell Hall

PROFESSORS LANMAN, WALKER, AND McKAY, ASSISTANT PROFESSORS FINDLEY, DONNELLY, AND TURNBULL, MRS. MINTON, MISS RYAN, MISS COOLEY, MISS ROHE, MISS HEINER, AND
DEPARTMENT ASSISTANTS

401. Textiles and Clothing. Five credit hours. One Quarter. Autumn and Winter. Two lectures and three two-hour laboratory periods each week. Home Economics, first year. Miss Ryan, Miss Turnbull.

The study of fibers and fabrics from an historic, economic, hygienic, and social standpoint. The laboratory work involves the planning of garments, the selection of materials, the fundamental principles of garment construction, the purchase and comparison of commercial products, and the care and repair of clothing.

402. Textiles and Clothing. Five credit hours. One Quarter. Winter and Spring. Two lectures and three two-hour laboratory periods each week. Home Economics, first year. Prerequisite, Home Economics 401; prerequisite or concurrent, Chemistry 402 or 412, Fine Arts 426. Miss Ryan, Miss Turnbull, Miss Heiner.

A continuation of Home Economics 401, with the addition of drafting and elementary dress design.

403. Dress. Five credit hours. One Quarter. Autumn, Winter, Spring. Three three-hour periods each week for lecture and laboratory. Home Economics, second year. Prerequisite, Home Economics 402; prerequisite or concurrent, Fine Arts 436. Miss Ryan, Miss Heiner.

The relation of economics, hygiene, and art to dress; the modeling and construction of garments. Special emphasis is placed on the selection, construction, care, and repair of wool garments.

409. Elements of Nutrition. Three credit hours. Winter Quarter. Three lectures each week. Not open to students majoring in Home Economics. Elective to other Juniors and Seniors. Miss McKay.

A non-technical course in which the essentials of an adequate diet are introduced.

This course is not open to students who have credit for Home Economics 410.

* Not given in 1927-1928.

410. Elements of Nutrition and Food Preparation. Five credit hours. Winter Quarter. Three lectures and two two-hour laboratory periods each week. Not open to students majoring in home economics. Elective to other Juniors and Seniors. This course is of equal interest to men and women. Miss McKay.

A non-technical course in which the essentials of an adequate diet are introduced. Information thus presented is used in planning, preparing, and serving meals for the family group.

This course is not open to students who have credit for Home Economics 409.

411. Foods. Five credit hours. One Quarter. Autumn, Winter, Spring. Three three-hour periods each week for lecture and laboratory. Special lectures, demonstrations, and trips are arranged to supplement classroom and laboratory work. Home Economics, second year. Prerequisite, Chemistry 402 or 412. Mrs. Minton, Miss Cooley.

An introduction to the study of the principles involved in the selection and preparation of food.

412. Foods. Five credit hours. One Quarter. Autumn, Winter, Spring. Three three-hour periods each week for lecture and laboratory. Home Economics, second year. Prerequisite, Home Economics 411. Miss Cooley.

A continuation of Home Economics 411, with emphasis on the planning, preparation and serving of meals for general home use.

418. Elements of Homemaking. Five credit hours. Spring Quarter. Five lectures each week. Not open to students majoring in home economics. Elective to other Juniors and Seniors. This course is of equal interest to men and women. Mrs. Walker.

A non-technical course in which the principles of household administration are introduced. The course includes a survey of the factors influencing the general division of the family income and a survey of the principles of selection and purchase of clothing, and of textile materials and equipment for the home.

421. The Child in the Home. Three credit hours. Autumn Quarter. Three lectures each week. Not open to students majoring in Home Economics. Elective to other Juniors and Seniors. Miss Lanman.

This course considers problems concerning the care and training of the child in the home.

501. Advanced Dress. Five credit hours. One Quarter. Autumn and Spring. Three three-hour periods each week for lecture and laboratory. Prerequisite, Home Economics 403. Miss Ryan, Miss Heiner.

An advanced study of clothing construction.

502. Millinery. Three credit hours. One Quarter. Autumn and Spring. Three two-hour periods each week. Prerequisite or concurrent,

Home Economics 403. Not open to Freshmen and Sophomores. Miss Heiner.

The selection, construction, and renovation of hats.

511. Home Hygiene. Three credit hours. One Quarter. Autumn and Winter. Three lectures each week. Home Economics, third year. Prerequisites, Home Economics 402, 412, Bacteriology 607, and Physiology 404. Miss Lanman.

A study of the interdependence of the home and of public agencies in securing and promoting hygienic and sanitary measures and practices, and of public agencies in promoting health.

512. House Furnishing. Five credit hours. One Quarter. Autumn, Winter, Spring. Three lectures and two two-hour laboratory periods each week. Prerequisites, Fine Arts 426 and Home Economics 402; prerequisite or concurrent, Engineering Drawing 438. Mrs. Walker.

The course includes a study of the evolution of the home, a brief history of architecture, ornament, and furniture, and a study of fundamental principles of house furnishing from a constructive, aesthetic, and economic standpoint.

FOR ADVANCED UNDERGRADUATES AND GRADUATES

611. Nutrition. Five credit hours. One Quarter. Autumn, Winter, Spring. Three lectures and two two-hour laboratory periods each week. Home Economics, fourth year. Prerequisites, Home Economics 412, Physiology 404, and Agricultural Chemistry 403. Miss McKay.

A study of the fundamental principles of human nutrition and their application to the feeding of individuals and groups under varying physiological and economic conditions.

612. Advanced Nutrition. Five credit hours. Spring Quarter. Three two-hour periods each week for lecture and laboratory; other hours to be arranged. Prerequisite, Home Economics 611. Miss McKay.

A continuation of Home Economics 611. A study of current literature on nutrition. Problems of feeding in connection with overweight, underweight, rickets, diabetes, and other abnormal conditions are discussed.

613. Field Work in Nutrition. Five credit hours. One Quarter. Autumn, Winter, Spring. One conference each week; other hours to be arranged. Elective. Prerequisite, Home Economics 611 and consent of instructor. Miss McKay.

An application of principles of nutrition to social and educational problems in schools, clinics, dispensaries, and homes.

614. Foods. Five credit hours. One Quarter. Autumn and Winter. Two lectures and three two-hour laboratory periods each week. Prerequisites, Home Economics 611 and Economics 407 or 401-402. Miss McKay.

A study of foods with reference to purchasing, planning of menus and preparation of meals for groups of various income levels.

This course is not open to students who have credit for Home Economics 413.

615. Experimental Work in Food Preparation. Five credit hours. Winter Quarter. Three three-hour periods each week for lecture and laboratory. Elective. Prerequisite, Home Economics 611. Mrs. Minton.

An application of scientific principles to problems involved in food preparation.

617. Household Management. Five credit hours. One Quarter. Autumn, Winter, Spring. Four lectures each week and laboratory to be arranged. Prerequisites, Home Economics 402, 412, 512, 611, and Economics 407 or 401. Mrs. Walker.

A study of the organization and management of the household with a view to securing the maximum of family welfare. Time is given to a consideration of the problems of expenditure through a study of relative values, examination of budgets, and discussion of factors influencing choice.

The Home Economics apartment and house where the students live in groups for a period of time, afford opportunity for experience.

618. The Purchase of Clothing and Household Furnishing. Five credit hours. Autumn Quarter. Three conferences each week; other hours to be arranged. Elective. Prerequisites, Home Economics 403, Economics 407 or 401, and Sociology 401. Mrs. Walker.

This course deals with social and economic factors involved in the purchase of clothing and household furnishing. Field work is arranged with wholesale and retail merchants.

621. Child Care. Five credit hours. One Quarter. Autumn, Winter, Spring. Four lectures each week; laboratory to be arranged. Prerequisites, Psychology 401, and Home Economics 611; prerequisite or concurrent, Home Economics 617 and sociology. Miss Lanman.

The nature, development, care, and training of the child and the responsibility of society for providing for the physical, mental, and social needs of the child. The Home Economics Nursery School affords an opportunity for experience in dealing with problems of child care and management.

631. Institution Management. Five credit hours. One Quarter. Autumn, Winter, Spring. Credit will not be given until the following course, Home Economics 632, has been completed. Hours for discussion and laboratory to be arranged. Limited to five students. Prerequisites, Home Economics 611, Economics 407 or 401-402; prerequisite or concurrent, Home Economics 630. Miss Findley.

This course considers the preparation of food in large quantities, food cost accounting, efficiency problems, use and care of equipment and organization of employees. The laboratory work will be conducted in the Home Economics Cafeteria. No other course than Home Economics 630 is to be scheduled with this course. Inasmuch as more than the usual amount of time is required for Home Economics 631, some remuneration will be paid for a part of the work.

632. Institution Management. Five credit hours. One Quarter. Winter and Spring. Two three-hour periods each week for lecture and laboratory; other hours to be arranged. Prerequisites, Home Economics

631 and consent of the instructor; prerequisite or concurrent, Accounting 606 and Animal Husbandry 407. Miss Findley.

This course considers the housing and food problems in various types of institutions. The Home Economics Cafeteria, the Faculty Club, Ohio Union Cafeteria, and Pomerene Hall Refectory are used as laboratories. Observations are made in restaurants, tea rooms, hotels, schools, and hospitals.

633. School Lunchroom Management. Three credit hours. Autumn Quarter. One lecture and two two-hour laboratory periods each week. Prerequisite or concurrent, Home Economics 611. Miss Findley.

This course is arranged for those who wish to be prepared to manage school lunchrooms in connection with their teaching. It consists of a survey of equipment, organization, and management, with observations and practice in city and rural school lunchrooms.

641. Home Economics Teaching. Five credit hours. One Quarter. Autumn, Winter, Spring. Three lectures each week throughout the Quarter; observations to be arranged. Elective for Juniors, Seniors, and graduate students. Required of students preparing for teaching vocational home economics. Prerequisites, Psychology 401 and thirty-five Quarter-credit hours in required courses in Home Economics. It is suggested that students registering for this course arrange their schedules so that they may have at least two half-days each week free for observation trips. Miss Donnelly.

This course is given as preparation for supervised teaching in home economics. It includes a brief history of home economics instruction and its development to cope with present-day needs. The course is developed with lectures and class discussions on the organization of home economics courses for various types of schools; planning of lessons; equipment of laboratories; classroom management and organization of home-project work. Vocational education is emphasized. Observation trips are scheduled and practice given in demonstration lessons.

642. Supervised Home Economics Teaching. Five credit hours. One Quarter. Autumn, Winter, Spring. Three lectures each week throughout the Quarter; other hours to be arranged. Time schedules for the Quarter must be approved by those in charge of the course. Elective for Seniors. Required of students preparing for teaching vocational home economics. Prerequisite, Home Economics 641. Students registering for this course must arrange their schedules so that they may have five half-days each week free for supervised teaching. Miss Donnelly and critic teachers.

This course gives an opportunity to teach classes in a city high school, rural and village schools, evening schools, and settlements. Each student makes observations and reports, and is required to teach approximately thirty class exercises. This course gives the special preparation for certification to teach Home Economics under the Smith-Hughes law and for the Special Provisional and High School State Certificate.

701. Special Problems in Home Economics. Three to fifteen credit hours for one Quarter or more. To be given in units of three or five hours. Autumn, Winter, Spring Quarters. One conference or more

each week. Prerequisite, twenty-five Quarter-credit hours in the required courses in Home Economics and consent of the instructor. Miss Lanman, Mrs. Walker, Miss McKay, Miss Donnelly, Miss Findley.

Readings and reports on home economics topics. Problems chosen for individual study.

FOR GRADUATES

An undergraduate student shall not be permitted to take any course in the "800" group except by permission of the Graduate Council.

801. Advanced Special Problems in Home Economics.

For description of graduate course in this department see the Bulletin of the Graduate School.

INDUSTRIAL ARTS

(See Industrial Engineering)

INDUSTRIAL ARTS EDUCATION

Office, 212 Industrial Engineering Building

PROFESSOR STONE, ASSISTANT PROFESSORS SMITH AND WARNER

There is opportunity in this department for men and women to major or minor in Industrial Arts Education, or to secure training in special phases of the field as outlined below:

I. Teaching and Supervising Industrial Arts in the Elementary and Rural School: 500*, 604. Principles of Education 441.

II. Teaching and Supervising Industrial Arts in the Junior and Senior High School: 450, 606, 608, 610, 625. Principles of Education 440.

III. Training in Shopwork Related to the Farm: 510.

IV. Training in Junior High School General Laboratory Activities: 400, 430.

V. Training in Elementary and Advanced Woodworking, Wood Turning, and Wood Finishing: 410, 412, 414, 416, 430.

VI. Designing Projects in the Various Industrial Arts Activities: 450, 452.

VII. Teaching of Occupations in the Junior and Senior High School: 610.

VIII. Training in Machine Shop Practice, Foundry, Forging, Sheet-metal Work, and Patternmaking (in cooperation with the Department of Industrial Engineering): Industrial Engineering 405, 407, 411, 415, 416, 419.

IX. Training in Mechanical and Architectural Drawing (in cooperation with the Department of Engineering Drawing): Engineering Drawing 401, 436.

NOTE: Women students should be especially interested in the broad command of industrial and household information and skills available through 400, 410, 412, 416, 500*, 610.

* Given in Summer Quarter only.

***400. General Industrial Arts Laboratory.** Five credit hours. Autumn Quarter. One lecture and four three-hour laboratory periods each week. Introductory course; required of all men whose major or minor is Industrial Arts Education (effective, Autumn Quarter, 1928). Mr. Warner.

Orientation in varied industrial pursuits. Especially significant to teachers of general laboratory in high or continuation schools. At least one project required of each student in activities chiefly characteristic of cabinet work, patternmaking, bench metal, electricity, cement, household mechanics, forging, foundry, drawing, and blue-printing.

410. Elementary Woodworking and Wood Finishing. Three credit hours. Winter Quarter. One lecture and two three-hour laboratory periods each week. Required in Industrial Arts Education. Mr. Smith.

Designed for both men and women. Trains for mastery of woodworking tools. Projects, including simple inlays and carving, are illustrative of junior high school woodwork. Basic procedures in woodfinishing and refinishing include: removing finishes, staining, filling, shellacing, varnishing, waxing, enameling, rubbed finishing, and polishing.

This course is not open to students who have credit for Industrial Education 401.

412. Advanced Woodwork, Finishing, and Wood Turning. Three credit hours. Spring Quarter. One lecture and two three-hour laboratory periods each week. Required in Industrial Arts Education. Mr. Warner.

Designed for both men and women. Continues the work of 410 and adds wood turning. Projects are typical of spindle, face-plate, chuck, and mandrel turning involving different tools, cuts, woods, and finishes.

This course is not open to students who have credit for Industrial Education 501.

414. Cabinet Making. Three credit hours. Autumn Quarter. One lecture and two three-hour laboratory periods each week. Required in Industrial Arts Education. Prerequisite, Industrial Arts Education 410. Mr. Smith.

Principles of design and construction; millwork, involving use of woodworking machines; processes in joinery, upholstering, veneering, caning, and art-fiber work; and a study of native and foreign cabinet woods involving their identification and suitability for use in connection with the construction of appropriate pieces of furniture.

This course is not open to students who have credit for Industrial Education 503.

416. Advanced Cabinet Making. Three credit hours. Spring Quarter. One lecture and two three-hour laboratory periods each week. Required in Industrial Arts Education. Prerequisites, Industrial Arts Education 414 and 450. Mr. Warner.

A continuation of Industrial Arts Education 414. It involves, in addition, the construction of projects designed by students in the project design courses.

This course is not open to students who have credit for Industrial Education 504.

* Not given in 1927-1928.

430. Installation and Maintenance of School Shop Equipment. Three credit hours. Autumn Quarter. One lecture and two three-hour laboratory periods each week. Required in Industrial Arts Education. Prerequisite, Industrial Arts Education 414. Mr. Smith.

A consideration of problems and standards involved in planning rooms and in the design, location, installation, and care of equipment in the various high school industrial arts laboratories. What should go into a laboratory and why. Training in tool grinding, saw filing, brazing, babbitting, belt lacing, and other phases of maintenance.

This course is not open to students who have credit for Industrial Education 525.

450. Project Design. Three credit hours. Autumn Quarter. One lecture and two three-hour laboratory periods each week. Required in Industrial Arts Education. Prerequisite, Engineering Drawing 401. Mr. Smith.

Design of projects involving different industrial materials which are suitable for construction in the general industrial arts laboratory of the junior high school or in the specialized classes of the junior-senior high school. A consideration of materials, contours, enrichment, construction, and utility of projects.

This course is not open to students who have credit for Industrial Education 521.

452. Advanced Project Design. Three credit hours. Winter Quarter. One lecture and two three-hour laboratory periods each week. Required in Industrial Arts Education. Prerequisites, Engineering Drawing 436, and Industrial Arts Education 450, or the equivalent. Mr. Smith.

Continues the work of Industrial Arts Education 450, adding a study of period style furniture with a consideration of harmony and unity in furnishings. Laboratory consists of more advanced work in the design of projects involving wood, metal, clay, etc., and in the design of period furniture.

This course is not open to students who have credit for Industrial Education 522.

†500. Industrial Arts Laboratory for Teachers in Elementary Schools. Three credit hours. Two three-hour periods each week for lecture and laboratory. Mr. Warner.

A laboratory course involving the use of tools and various materials suitable for use in the elementary school. Projects deal with pure handwork, illustrative handwork, and with the processes and products of industry. Examination of educational materials which have been gathered from over five hundred industries.

510. Shopwork Related to the Farm. Five credit hours. Winter Quarter. Five three-hour periods each week for lecture and laboratory. Mr. Smith.

This course is designed for students who expect to teach Smith-Hughes classes in Agriculture. Projects involve tools, materials, and operations typical of the farm—elementary carpentry, cabinetmaking, and mechanics; rope tying and splicing; soldering. This course should interest any student who desires an acquaintance with farm shop fundamentals.

† Not given during the academic year, 1927-1928.

FOR ADVANCED UNDERGRADUATES AND GRADUATES

600. Introduction to Industrial Arts Education for Students of Education. Three credit hours. One Quarter. Autumn, Winter, Spring. Three recitation periods each week. Required of all men students in the College of Education during the third year. Mr. Stone.

Industrial arts education in the general curriculum. Brief historical resume, emphasizing present status and trends of industrial arts education as a motivating, activating means to integration and command of fundamentals in elementary grades; a differentiating, exploratory medium in junior high school; prevocational preparation in the senior high school. Terminology; leaders; principles.

This course is not open to students who have credit for Industrial Education 626.

604. Industrial Arts in the Elementary School Curriculum. Three credit hours. Spring Quarter. Three recitations each week. Prerequisite, Industrial Arts Education 500 or permission of the instructor. Mr. Warner.

For elementary teachers and supervisors who wish to use industrial arts as an integral part of the curriculum. Meaning and purpose of industrial arts. Organization and use of projects and lessons involving different industrial materials. Equipment. Courses of study. Criteria for selecting projects and different types of handwork.

This course is not open to students who have credit for Industrial Education 402.

606. Specialized Industrial Arts Curricula in the Junior and Senior High School. Three credit hours. Autumn Quarter. Three recitation periods each week. Required of all men in Industrial Arts Education. Prerequisites, Industrial Arts Education 430 and 450, or permission of the instructor. Mr. Stone.

Principles and practice in defining specific objectives, and in selecting and organizing industrial arts activities in specialized curricula. Technique of occupational analysis for curricular purposes applied to cabinet making, carpentry, drafting, sheet-metal work, automotives, etc. Methods of teaching; devices; teaching plans; problems in disciplinary organization; criteria for promotions.

This course is not open to students who have credit for Industrial Education 524.

608. General Industrial Arts Curriculum in the Junior High School. Three credit hours. Winter Quarter. Three recitation periods each week. Required of all men in Industrial Arts Education. Prerequisites, Industrial Arts Education 430 and 450, or permission of the instructor. Mr. Stone.

Principles and practice in defining objectives and in selecting and organizing industrial arts activities in the junior high school general industrial arts laboratory. Study and evaluation of the processes, products, and personnel of industry by means of construction, investigation, and experiment.

610. Occupational Studies in the Junior and Senior High School. Three credit hours. Spring Quarter. Three recitation periods each week. Required in Industrial Arts Education. Prerequisite, Industrial Arts

Education 608 or permission of the instructor. Mr. Stone.

A course designed especially for teachers of occupations in junior and senior high and continuation schools. Attention is given to the development of a technique for gathering, evaluating, and presenting significant occupational data, to the end that youth may become self-reliant in occupational study and choice.

625. Organization and Supervision of Industrial Arts Education in the Junior and Senior High School. Three credit hours. Winter Quarter. Prerequisites, Industrial Arts Education 430, 600, and 604, or permission of the instructor. Mr. Stone.

Relation of industrial arts education to the general curriculum. Courses of study; laboratory and shop provisions in building plans; equipment; relative cost; class and shop organization, and the development of an effective program of supervision; selection of teachers and their improvement in service.

650. Minor Problems in Industrial Arts Education. One or more credit hours. Autumn, Winter, Spring Quarters. Prerequisite, twenty-five hours in industrial arts education and consent of the instructor. Mr. Stone.

This course offers opportunity for intensive study or investigation of specific phases of industrial arts education. Appropriate topics are found in the curriculum; laboratory or shop equipment; student records; building standards; correlation of courses; standards of measurement for teachers or students; and other problems of organization, administration, supervision, or instruction.

FOR GRADUATES

An undergraduate student shall not be permitted to take any course in the "800" group except by permission of the Graduate Council.

801-802-803. Seminary in Industrial Education.

804. Major Research Problems in Industrial Education.

For description of graduate courses in this department, see the Bulletin of the Graduate School.

NOTE: In addition to the graduate courses listed under the heading, "Industrial Arts Education," students may elect not to exceed nine hours from the following courses offered by other departments and count them toward the major in Industrial Arts Education for the Master's degree:

Economics (637) Industrial Relations. Three credit hours.

Psychology (608) Educational Statistics: Elementary. Three credit hours.

Psychology (638) Industrial and Vocational Psychology Laboratory. Three credit hours.

Psychology (639) Psychology and Personnel. Three credit hours.

Public Health (603) Industrial Hygiene. Three credit hours.

Vocational Education (607) Vocational Counseling. Two credit hours.

Minors may be chosen in the departments of Business Organization, Vocational Education, School Administration, Psychology, Economics, Principles and Practice of Education, Fine Arts, or in other departments approved by the instructor in charge of the major.

INDUSTRIAL ENGINEERING

Office, 119 Industrial Engineering Building

PROFESSORS YOUNGER AND W. A. KNIGHT, MR. BEEM, MR. FOUST, MR. DENMAN, MR. WRIGHT, MR. SCHNEIDER, MR. RICKLY, MR. JANNING AND DEPARTMENT ASSISTANTS

405. Foundry Practice. Three credit hours. One Quarter. Autumn, Winter, Spring. One recitation and six laboratory hours each week. Mr. Schneider.

Laboratory practice in bench, floor and machine moulding, cupola operation, and core making. Recitations cover foundry tools and appliances. Foundry materials—sands, clays, facings, fluxes, and core binders. Mixtures for gray iron, brass, bronze, and aluminum. Founding losses and production methods.

This course is not open to students who have credit for Shopwork 405.

407. Metal Bench Work. Two credit hours. One Quarter. Autumn, Winter, Spring. One recitation and four laboratory hours each week. Mr. Rickly, Mr. Janning.

Laboratory practice in sheet metal work, soldering and brazing, hand and power chipping, filing, fitting, scraping, light drilling, tapping, and punch press work.

This course is not open to students who have credit for Shopwork 407.

408. Millwrighting. Two credit hours. One Quarter. Autumn, Winter, Spring. One recitation and four laboratory hours each week. Prerequisite, Industrial Engineering 407. Mr. Rickly, Mr. Janning.

Practical consideration given to the use and care of belting, erection of shafting, setting and alignment of machines, fastenings of various kinds, babbitting, pipe fitting, and autogenous welding.

This course is not open to students who have credit for Shopwork 408.

411. Patternmaking. Three credit hours. One Quarter. Autumn, Winter, Spring. One recitation and six laboratory hours each week. Mr. Beem, Mr. Denman.

Laboratory practice in modern methods of patternmaking in a well-equipped shop. Recitations cover general principles of patternmaking, woods used, glued joints, methods of building up, draft, shrinkage, coating, and storage.

This course is not open to students who have credit for Shopwork 411.

415. Forging and Heat Treating. Three credit hours. One Quarter. Autumn and Winter. One recitation and six laboratory hours each week. Mr. Foust.

Laboratory practice begins with plain, simple forgings in iron and steel, progresses through power hammerwork, and finishes with heat treatment of iron and steel. Particular attention paid to faults developed through underheating or overheating in welding and insufficient energy in hammerblows.

This course is not open to students who have credit for Shopwork 415.

416. Forging and Sheet Metal Work. Three credit hours. One Quarter. Autumn, Winter, Spring. One recitation and six laboratory

hours each week. Required in Industrial Arts Education. Mr. Foust, Mr. Janning.

Laboratory practice in light forging, sheet metal work, pipe fitting, wire splicing, and soldering.

This course is not open to students who have credit for Shopwork 416.

419. Elementary Machine Work. Three credit hours. One Quarter. Autumn, Winter, Spring. One recitation and six laboratory hours each week. Required in Industrial Arts Education. Mr. Wright, Mr. Rickly, Mr. Janning.

Laboratory practice on lathe, shaper, and drill press. Includes the fundamental operations on the lathe of straight, shoulder, and taper turning, facing, screw cutting, shuck and face plate work, boring, reaming, filing, and polishing. Elementary practice on the drill press and shaper.

This course is not open to students who have credit for Shopwork 419.

421. Advanced Machine Work. Three credit hours. One Quarter. Autumn, Winter, Spring. One recitation and six laboratory hours each week. Prerequisite, Industrial Engineering 419. Mr. Knight, Mr. Wright, Mr. Rickly.

A continuation of Industrial Engineering 419, with more advanced practice on the lathe, planer, shaper, plain and universal milling machines, grinders, turret lathe, and drill press. Work organized and carried out on a production basis, with standard time, interchangeable parts, work limits, inspection, and assembly.

This course is not open to students who have credit for Shopwork 421.

FOR ADVANCED UNDERGRADUATES AND GRADUATES

623. Advanced Machine Work. Three credit hours. One Quarter. Autumn, Winter, Spring. One recitation and six laboratory hours each week. Prerequisites, Industrial Engineering 419 and 421. Mr. Knight, Mr. Wright, Mr. Rickly.

A course that gives practice corresponding to that of the tool and maintenance divisions of commercial shops. Tools, jigs, fixtures, development work, and repairs furnish the necessary exercises.

This course is not open to students who have credit for Shopwork 523.

ITALIAN

(See Romance Languages and Literatures)

JOURNALISM

Office, Journalism Building

PROFESSORS MYERS AND HOOPER, ASSISTANT PROFESSOR GETZLOE,
MR. O'BRIEN, MR. MORRILL

401. News-Collecting and News-Writing. Five credit hours. One Quarter. Autumn, Winter, Spring. Three recitations and two labora-

tory periods each week on the Lantern. Not open to Freshmen. Mr. Myers, Mr. Getzloe, Mr. Morrill.

Training of reporters by theory and practice. Laboratory work is done on the University daily paper, the Lantern, which is organized and operated as nearly like a city newspaper as possible.

402. News-Collecting and News-Writing. Five credit hours. One Quarter. Autumn, Winter, Spring. Three recitations and two laboratory periods each week on the Lantern. Prerequisite, Journalism 401. Mr. Myers, Mr. Getzloe.

A continuation of Journalism 401.

501. Copyreading. Three credit hours. One Quarter. Autumn and Spring. Two recitations and one laboratory period each week on the Lantern. Prerequisite, Journalism 401-402. Mr. Myers.

Editing of copy, headline writing, re-writing, and general desk work.

502. Feature Writing. Three credit hours. One Quarter. Winter and Spring. Two recitations and one laboratory period each week on the Lantern. Prerequisite, Journalism 401-402. Mr. Getzloe.

Instruction in and writing of special newspaper and magazine articles, together with investigation as to the market for such matter.

513. Newspaper Ethics and Principles. Three credit hours. One Quarter. Autumn and Spring. Three recitations each week. Prerequisite, Journalism 401-402. Mr. Myers, Mr. Getzloe.

The rights and duties of the press, its morals, its standards, and its part in community, state, and national life.

517. Newspaper History and Comparative Journalism. Five credit hours. Winter Quarter. Five recitations each week. Mr. Hooper, Mr. Getzloe.

Origin and growth of journalism in America, with consideration of the beginning and present state of journalism in other lands. Notable editors and publishers and mutual influence of the press and democracy.

518. Newspaper Organization. Five credit hours. One Quarter. Autumn and Spring. Five recitations each week. Mr. Hooper.

Survey of the news, editorial, business, and mechanical departments with discussion of the opportunities and responsibilities of those in various posts. History of printing and a survey of the primitive and modern methods of printing and illustrating.

FOR ADVANCED UNDERGRADUATES AND GRADUATES

621. Editorial Writing. Three credit hours. One Quarter. Autumn and Spring. Three recitations each week. Mr. Hooper, Mr. Getzloe.

Study of the purpose, form, style, and spirit of the editorial, as well as the responsibility of the writer to the newspaper, the community, and the profession. Consideration of current events, practice in news interpretation and other editorial writing, and study of editorial pages.

622. Public Opinion in the Making. Three credit hours. Winter Quarter. Three recitations each week. Mr. Hooper.

Study of the newspaper's part, through news-selection and display, through editorial-writing, and in the dramatic, music, and literary departments. Current events and practice editorial-writing.

LATIN LANGUAGE AND LITERATURE

(See Classical Languages and Literature)

MANUAL ARTS

(See Industrial Arts Education)

MATHEMATICS

Offices, 307, 314, 315, and 317 University Hall

PROFESSORS KUHN, McCOARD, RASOR, C. C. MORRIS, ARNOLD, BLUMBERG,
AND WEAVER, ASSISTANT PROFESSORS BAREIS, BEATTY, CARIS,
RICKARD, BUMER, AND MacDUFFEE, MISS HOBENSACK, MISS
JONES, AND DEPARTMENT ASSISTANTS

The following sequences in Mathematics are recommended:

I. For teachers of mathematics in secondary schools and junior colleges:

(1) 421, 422, 423, or 431, 432, 433, followed by 441, 442.

(2) 641, 601, 443

(3) 621, 623, 684, 685

(4) Principles of Education 735 (Teaching of Mathematics)

In this group, sequence (1) should be supplemented by two or more elections from each of the sets (2) and (3).

II. Those preparing to teach in colleges and universities or to work in the more advanced fields of mathematics, after completing 443 should advise with members of the department with reference to elections. It is recommended that all such students acquire a reading knowledge of French, German, and Italian as early as possible.

III. For business purposes:

421 or 432, 429, 435, 430

IV. For actuarial work:

First year: 421, 422, 423, or 431, 432, 433

Second year: 441, 442, 443

Third year: 429, 430, 691, 692, 693

Fourth year: 694, 696

V. For statistical work:

First year: 421, 422, 423, or 431, 432, 433

Second year: 441, 442, 443, 429

Third year: 601, 691, 611

Fourth year: 692, 696, 697

421. College Algebra. Five credit hours. One Quarter. Autumn and Winter. Five recitations each week. Prerequisites, one unit of entrance algebra and one unit of entrance geometry. All instructors.

Fundamental ideas and topics of college algebra. Designed, along with the allied courses, Mathematics 422, 429, and 435, to give students in the arts and sciences a con-

ception of the character and possibilities of modern mathematics, especially in relation to its uses in other subjects.

422. Plane Trigonometry. Five credit hours. One Quarter. Winter and Spring. Five recitations each week. Prerequisites, one unit of entrance algebra and one unit of entrance geometry. All instructors.

Solution of right and oblique triangles, theory and use of logarithms, solution of trigonometric equations and identities, various applications to the arts and sciences.

423. Analytic Geometry. Five credit hours. Spring Quarter. Five recitations each week. Prerequisites, Mathematics 421 and 422. All instructors.

***424. Selected Topics in Algebra for Students of Investments, Insurance, and Statistics.** Five credit hours. Autumn Quarter. Five recitations each week. Prerequisites, one unit entrance algebra and one unit entrance geometry.

Arithmetic and geometric series; binomial theorem; logarithms; quadratic, exponential, and logarithmic equations; graphs; arithmetic, logarithmic, and arithmometric computations; combinations and permutations; simple theory of probability.

429. Mathematics of Finance. Five credit hours. One Quarter. Autumn and Winter. Five recitations each week. Prerequisite, Mathematics 421 or 432. Mr. Kuhn, Mr. Morris.

The principles of interest and discount with applications to annuities, sinking funds, capitalization, depreciation, valuation of bonds, building and loan associations.

430. Mathematics of Insurance. Five credit hours. Spring Quarter. Five recitations each week. Prerequisite, Mathematics 429. Mr. Kuhn, Mr. Morris.

Computations of premiums and reserves for life annuities and insurance, for health and accident insurance; application of life annuities to the evaluation of life estates.

431. Plane Trigonometry. Five credit hours. One Quarter. Autumn and Winter. Five recitations each week. Prerequisites, one and one-half units of entrance algebra and one unit of entrance geometry or Mathematics 400 and one unit of entrance geometry. All instructors.

432. College Algebra. Five credit hours. One Quarter. Winter and Spring. Five recitations each week. Prerequisites, one and one-half units of entrance algebra and one unit of entrance geometry or Mathematics 400 and one unit of entrance geometry. All instructors.

433. Analytic Geometry. Five credit hours. One Quarter. Autumn and Spring. Five recitations each week. Prerequisites, Mathematics 431 and 432. All instructors.

* Not given in 1927-1928.

435. Elementary Mathematical Statistics. Five credit hours. Winter Quarter. Five recitations each week. Prerequisite, Mathematics 421 or 432. Mr. Morris.

Representation of statistical data by difference, frequency and logarithmic curves; averages; statistical constants; total and partial correlation; index numbers; formulas used in mental measurement tests; the normal curve; applications in economics, biology, psychology, and educational research.

441-442-443. Calculus. Five credit hours. Three Quarters. 441, Autumn and Winter; 442, Autumn, Winter, Spring; 443, Autumn, Winter, Spring. Five recitations each week. Prerequisite, Mathematics 423 or 433. All instructors.

FOR ADVANCED UNDERGRADUATES AND GRADUATES

601. Advanced Calculus. Five credit hours. Autumn Quarter. Five recitations each week. Prerequisite, Mathematics 443. Mr. Weaver.
Selected topics from Wood's Advanced Calculus.

611. Differential Equations. Five credit hours. Winter Quarter. Five recitations each week. Prerequisite, Mathematics 443.

612. Differential Equations. Five credit hours. Spring Quarter. Five recitations each week. Prerequisite, Mathematics 611.

617. Introduction to Modern Mathematics. Five credit hours. Autumn Quarter. Five recitations each week. Prerequisite, ten credit hours in mathematics beyond Mathematics 443, or permission of the instructor. Mr. Blumberg.

The principal aim of this course is not the imparting of comprehensive information but the initiation of the student, by means of lectures, collateral reading and problems, into various mathematical domains. The content will be selected from the following fields: Graphical and Numerical Methods, Projective Geometry, Theory of Numbers, the Mathematical Continuum, Mathematical Foundations, Point-Sets, Groups, Probability, and Relativity.

621. Advanced Euclidian Geometry. Five credit hours. Winter Quarter. Five recitations each week. Prerequisite, Mathematics 442. Mr. Weaver.

Geometric constructions; points lines and circles associated with a triangle; harmonic ranges and pencils; harmonic properties of the circle; radical axis; pole and polar with respect to a circle; inversion; symmedian points; Brocard points. This is chiefly a problem course in the field of plane geometry, and is of special value to teachers of the subject.

623. Projective Geometry. Five credit hours. Spring Quarter. Five recitations each week. Prerequisite, Mathematics 443. Miss Bareis.

Projection and section, duality, cross ratio, involution. Theorems of Desargues, Pascal and Brianchon, construction problems of the first and second degree.

625. Solid Analytic Geometry. Five credit hours. Autumn Quarter. Five recitations each week. Prerequisite, Mathematics 443. Miss Bareis.

Systems of coordinates; planes and lines; types of surfaces; quadric surfaces; duality.

641. Elementary Theory of Equations. Five credit hours. Autumn Quarter. Five recitations each week. Prerequisite, Mathematics 443. Mr. Kuhn.

Construction with ruler and compasses, numerical equations, determinants, symmetric functions. Text: Dickson's First Course in the Theory of Equations.

661. Vector Analysis. Five credit hours. Spring Quarter. Five recitations each week. Prerequisites, Mathematics 601 and Physics 408 or 433, or the equivalent. Mr. Bumer.

Vector and scalar algebra and geometry, differentiation and differential operators, applications to electrical theory and to mechanics, dynamics, and hydro-dynamics.

684. Materials and Concepts of Elementary Mathematics. Five credit hours. Winter Quarter. Five recitations each week. Prerequisite, Mathematics 443. Mr. Arnold.

A critical review of the selection of the materials of secondary mathematics—the history of the development of this material and its underlying concepts. Systems of axioms for algebra; for geometry; the axiom of parallels. The Non-Euclidian Geometries. Constructions with ruler and compass. Variables, limits, number, infinity, transcendence.

***685. The History of Mathematics.** Five credit hours. Spring Quarter. Five recitations each week. Prerequisite, Mathematics 443. Mr. Arnold.

A survey of the development of elementary and secondary mathematics in ancient, medieval, and modern times, including a sketch of the history and teaching of mathematics in the United States.

691. Probability. Five credit hours. Autumn Quarter. Five recitations each week. Prerequisite, Mathematics 443. Mr. Morris.

The first half of the course will be devoted to the development of the theory of probability from the standpoint of permutations, combinations, choice and chance; the second half to a formal development of the subject as given by Coolidge in "Introduction to Probability."

692. Finite Differences. Five credit hours. Winter Quarter. Five recitations each week. Prerequisite, Mathematics 443. Mr. Bumer.

An introduction to finite differences; development of the more important methods of interpolation and summation.

696. Mathematical Statistics. Five credit hours. Winter Quarter. Five recitations each week. Prerequisite, Mathematics 691. Mr. Morris.

Derivation of statistical formulas by use of the theory of probability; least squares and their application to observational equations; curve fitting.

* Not given in 1927-1928.

697. Statistical Methods of Forecasting. Five credit hours. Spring Quarter. Five recitations each week. Prerequisite, Mathematics 696. Mr. Morris.

The application of the theory of probability to forecasting; weighting of biometric series by least squares; seasonal variations; curves of trend.

NOTE: TEACHING COURSES. For the Teaching Course in this department see the Department of Principles of Education, Course 735.

FOR GRADUATES

An undergraduate student shall not be permitted to take any course in the "800" group except by permission of the Graduate Council.

- 800. Seminary in Mathematics.
- 801. Reading and Research.
- *805. Functions of a Real Variable.
- 806. Theory of Functions of a Complex Variable.
- 812. Point-Sets.
- 814. Problems in Analysis.
- *816. Calculus of Variations.
- *822. Non-Euclidian Geometry.
- 827. Differential Geometry.
- †841. Finite Groups.
- 850. Theory of Numbers.
- *851. Introduction to Higher Algebra.
- *852. Algebraic Invariants.
- *853. Differential Invariants.
- *854. Continuous Groups.
- 855. Algebraic Numbers.
- 856. Hypercomplex Numbers.
- 861. Fourier's Series and Spherical Harmonics.
- *891. Mathematical Theory of Statistics.

For description of graduate courses in this department see the Bulletin of the Graduate School.

METEOROLOGY

(See Geology 420)

* Not given in 1927-1928.

† Not given during the academic year, 1927-1928.

MILITARY SCIENCE AND TACTICS

Office, The Barracks

COLONEL SHIPP; MAJORS MILLER, HARPER, McALPINE, AND HAUSER; CAPTAINS BARRY, HERSHEY, MINUS, ATKINSON, HANEY, FOY, JONES, HOPKINS, BRANSON, FUREY, AND LONG; LIEUTENANTS ECKERT, HOLMES, SMITH, HORNE, AND O'DELL; WARRANT OFFICER, AND NON-COMMISSIONED OFFICERS OF INFANTRY AND FIELD ARTILLERY

In accordance with the Morrill Act, passed in 1862, under which the University was established, military instruction must be included in the curricula. The Board of Trustees therefore requires all male students, both special and regular, unless excused by the Department of Military Science and Tactics, to receive military instruction during the first two years in Infantry or Field Artillery, the choice at the option of the student.

After one year's training in Infantry or Field Artillery, students who are regularly enrolled in either the curriculum in Electrical Engineering or in Engineering Physics may apply for transfer to the Signal Corps. Selected applicants enter the Signal Corps at the beginning of their Sophomore year.

The Reserve Officers' Training Corps was established under the National Defense Act of June 3, 1916, and June 4, 1920, the required two years' work being included in its four-year course, the third and fourth years being elective. Instruction is given in Infantry, Field Artillery, Signal Corps, Veterinary, Dental, and Medical Units. Twenty-two commissioned officers, one warrant officer, and twenty-one enlisted men of the Regular Army are detailed as instructors.

Uniform is furnished Freshmen upon deposit of \$30.00 being made with the Bursar. This deposit is credited back to the student at the rate of \$4.00 per month for each month of the academic year during which the student actually attends classes in Military Science, until the whole deposit is so credited. Such credits are paid back to the student by the Bursar at the close of the Spring Quarter of each academic year. The uniform is required to last two years, and if kept in good repair throughout the Freshman and Sophomore years an upkeep allowance of \$6.00 is paid to the student at the close of the Spring Quarter of the Sophomore year. Advanced course students are furnished uniform without expense and in addition a daily compensation from the Government for two years. For the year 1926-1927 the compensation has been thirty cents a day.

The total credit in this department allowed toward a degree is 18 Quarter-hours, exclusive of Infantry 401, 402, 403, 404, 405, 406, or Field Artillery 421, 422, 423, 424, 425, 426, required of all male students in the first and second years, for which 6 credit hours is granted; and exclusive of Signal Corps 444, 445, 446, for which 3 credit hours is granted.

INFANTRY

401. Infantry. One credit hour. Autumn Quarter. One recitation and two practical periods each week. Infantry instructors.

Instruction in infantry drill regulations and military courtesies.

402. Infantry. One credit hour. Winter Quarter. Three recitations each week. Infantry instructors.

Instruction in rifle marksmanship, scouting, and patrolling.

403. Infantry. One credit hour. Spring Quarter. One recitation and two practical periods each week. Infantry instructors.

Instruction in infantry drill regulations and advanced work.

404. Infantry. One credit hour. Autumn Quarter. One recitation and two practical periods each week. Prerequisites, Military Science 401, 402, 403. Infantry instructors.

Instruction in command and leadership, infantry weapons—automatic rifle.

405. Infantry. One credit hour. Winter Quarter. Three recitations each week. Infantry instructors.

Instruction in musketry, military hygiene, camp sanitation, and first aid.

406. Infantry. One credit hour. Spring Quarter. One recitation and two practical periods each week. Infantry instructors.

Instruction in infantry weapons—bayonet, hand and rifle grenades, map reading, and military sketching.

507. Advanced Infantry. Three credit hours. Autumn Quarter. Three recitations and two practical periods each week. Elective. Prerequisites, Military Science 401, 402, 403 or equivalents, and 404, 405, 406. Infantry instructors.

Instruction in command and leadership, military law and rules of land warfare, one pounder gun (infantry cannon) and light mortar.

508. Advanced Infantry. Three credit hours. Winter Quarter. Three recitations and two practical periods each week. Elective. Infantry instructors.

Instruction in field engineering (theoretical and practical).

509. Advanced Infantry. Three credit hours. Spring Quarter. Three recitations and two practical periods each week. Elective. Infantry instructors.

Instruction in command and leadership and machine guns.

510. Advanced Infantry. Three credit hours. Autumn Quarter. Three recitations and two practical periods each week. Elective. Prerequisites, Military Science 507, 508, 509. Infantry instructors.

Instruction in command and leadership, military history and advanced tactics.

511. Advanced Infantry. Three credit hours. Winter Quarter. Three recitations and two practical periods each week. Elective. Infantry instructors.

Instruction in advanced tactics (theoretical and practical).

512. Advanced Infantry. Three credit hours. Spring Quarter. Three recitations and two practical periods each week. Elective. Infantry instructors.

Instruction in command and leadership, advanced tactics (theoretical and practical), and administration of a company of infantry.

FIELD ARTILLERY

421. Field Artillery. One credit hour. Autumn Quarter. Three recitations each week. Field Artillery instructors.

Dismounted instruction. Preliminary exercises of the gun squads. Field Artillery materiel.

422. Field Artillery. One credit hour. Winter Quarter. Three recitations each week. Field Artillery instructors.

Fundamentals of military science, military courtesy, military policy, hygiene and first aid, elementary gunnery.

423. Field Artillery. One credit hour. Spring Quarter. One one-hour and one two-hour period each week, practical work. Field Artillery instructors.

The cannoneer, the firing battery, the battery mounted, ceremonies, pistol instruction.

424. Field Artillery. One credit hour. Autumn Quarter. One hour recitation and two hours practical work each week. Prerequisites, Military Science 421, 422, 423. Field Artillery instructors.

Elementary hippology, stable management, equitation.

425. Field Artillery. One credit hour. Winter Quarter. Three recitations each week. Field Artillery instructors.

Field Artillery motors and motor transportation, topography, reconnaissance.

426. Field Artillery. One credit hour. Spring Quarter. One one-hour and one two-hour period each week, practical work. Field Artillery instructors.

Driving and principles of draft, the battery mounted, students acting as drivers, ceremonies.

527. Advanced Field Artillery. Three credit hours. Autumn Quarter. Three recitation hours and two practical hours each week. Elective. Prerequisites, Military Science 424, 425, 426. Field Artillery instructors.

Organization, tactics, communications, equipment of the Field Artillery arm; advanced equitation, exercise of command and leadership as cadet officers or non-commissioned officers.

528. Advanced Field Artillery. Three credit hours. Winter Quarter. Three one-hour and one two-hour periods each week. Elective. Field Artillery instructors.

Advanced gunnery, including blackboard and terrain board conduct of fire.

529. Advanced Field Artillery. Three credit hours. Spring Quarter. One one-hour and one two-hour period each week, practical work. Elective. Field Artillery instructors.

Conduct of fire including smoke bomb firing, the battery mounted, the firing battery, students acting as non-commissioned officers, ceremonies.

530. Advanced Field Artillery. Three credit hours. Autumn Quarter. Three recitation hours and two practical hours each week. Elective. Prerequisites, Military Science 527, 528, 529. Field Artillery instructors.

Study of typical campaigns and battles, the military policy of the United States military law, exercise of command and leadership as cadet officers.

531. Advanced Field Artillery. Three credit hours. Winter Quarter. Three one-hour and one two-hour periods each week. Elective. Field Artillery instructors.

Organization and administration of the Army of the United States, tactics and strategy of the combined arms, map problems.

532. Advanced Field Artillery. Three credit hours. Spring Quarter. One one-hour and two two-hour periods each week, practical work. Elective. Field Artillery instructors.

The battery mounted, the firing battery, students acting as officers, ceremonies.

SUMMER CAMPS

As a part of the instruction of the Reserve Officers' Training Corps at the University, summer camps are conducted for this district: Infantry and Field Artillery at Camp Knox, Ky., thirty-one miles from Louisville, and Signal Corps at Camp Vail, N. J. One summer camp for the students of the first two years is held between the first and second school years. This camp is voluntary and upon its satisfactory completion two Quarter-credit hours will be granted. The camp for the advanced course is held between the third and fourth years and is required. For special reasons the advanced course camp, upon approved application, may be postponed until after the fourth year is completed.

These camps are of six weeks' duration and the work is mostly practical. In addition to military work, field sports and competitions are conducted. The training for Infantry includes firing on the target range with service rifles and using ball ammunition in combat exercises. The training for Field Artillery includes firing field guns with service ammunition. Signal Corps instruction includes the establishment and operation of radio stations in the field and field problems with the Infantry and Field Artillery involving application of training and communication engineering.

The Government furnishes transportation to and from the camps. While in camp, clothing, subsistence, medical attention, and entertainment are provided.

The students attending advanced course camp receive, in addition to the above, a salary of seventy cents per day.

The development of leadership and discipline are primary objects of these camps.

MUSIC

Office, 323 Campbell Hall

PROFESSOR HUGHES

430. History and Appreciation of Music. Four credit hours. Autumn Quarter. Four lectures each week. Music, first year. No prerequisite. Mr. Hughes.

An introduction to the appreciation of music. Study of the minor factors involved in intelligent listening.

431. History and Appreciation of Music. Four credit hours. Winter Quarter. Four lectures each week. Music, first year. Prerequisite, Music 430 or permission of the instructor. Mr. Hughes.

Application of principles studied in Music 430 to early music with special reference to polyphonic music and the compositions of Bach and Handel.

432. History and Appreciation of Music. Four credit hours. Spring Quarter. Four lectures each week. Music, first year. Prerequisite, Music 431 or permission of the instructor. Mr. Hughes.

Study of the element of form and the compositions of Haydn, Mozart, and Beethoven.

440. General Methods. Four credit hours. Autumn Quarter. Three lectures each week. Music, second year. Prerequisite or concurrent, Music 482, or permission of the instructor. Miss

A general course in school music methods designed primarily to equip the grade teacher to carry on the work outlined by the supervisor.

This course is not open to students who have credit for Music 403 and 404.

441. General Methods. Four credit hours. Spring Quarter. Three lectures each week. Music, second year. Prerequisite, Music 440 or Music 310 and 311. Miss

Continuation of Music 440.

This course is not open to students who have credit for Music 417 and 405.

442. School Music Methods. Five credit hours. Autumn Quarter. Five recitations each week. Music, third year. Prerequisite or concurrent, Music 480 and 482; alternative prerequisite, musical experience satisfactory to the instructor. Miss

Introduction to methods and materials for the prospective supervisor. Music of the first three grades. Appreciation of music from the child's viewpoint.

443. School Music Methods. Five credit hours. Spring Quarter. Five recitations each week. Music, third year. Prerequisite, Music 442. Miss

Continuation of Music 442, with methods and materials for grades four, five and six.

470. Harmony. Four credit hours. Autumn Quarter. Four recitations each week. Music, third year. Prerequisite, musical experience satisfactory to the instructor. Miss

Practice in scales, intervals, chords and simple harmonization with emphasis upon aural and keyboard harmony. A course for the prospective supervisor or for the general student wishing a more extensive introduction to musical technique than that supplied by Music 481.

This course is not open to students who have credit for both Music 408 and 409.

471. Harmony. Four credit hours. Winter Quarter. Four recitations each week. Music, third year. Prerequisite, Music 470 or its equivalent. Miss

Continuation of Music 470.

480. Essentials of Music. Two credit hours. Autumn Quarter. Two lectures each week. No prerequisite. Miss

Study of rhythms, signs, scales and terminology. Adapted to the needs of the grade teacher or of anyone desiring an introduction to musical technique.

481. Essentials of Music. Two credit hours. Winter Quarter. Two lectures each week. Prerequisite, Music 480. Miss

Continuation of Music 480.

482. Sight Singing and Dictation. Three credit hours. Autumn Quarter. Five recitations each week. Music, second year. No prerequisite. Miss

Sight singing and oral and written dictation. A course for either the grade teacher or the prospective supervisor.

This course is not open to students who have credit for both Music 406 and 407.

483. Sight Singing and Dictation. Three credit hours. Winter Quarter. Five recitations each week. Music, second year. Prerequisite, Music 482. Miss

Continuation of Music 482.

FOR ADVANCED UNDERGRADUATES AND GRADUATES

601. The Romanticists. Four credit hours. Autumn Quarter. Four lectures each week. Music, third year. Prerequisites, Music 432 and junior standing. Mr. Hughes.

The music of the romantic period in Germany and France.

602. The Opera. Four credit hours. Winter Quarter. Four lectures each week. Music, third year. Prerequisite, Music 601. Mr. Hughes.

Rise of romanticism in opera. Wagner and the culmination of the music drama. It is recommended that Music 431 and 432 also precede Music 602.

603. Modern Music. Four credit hours. Spring Quarter. Four lectures each week. Music, third year. Prerequisite, Music 601. Mr. Hughes.

A brief survey of modern developments with special reference to the composers of France and Russia.

610. Advanced School Music Methods. Four credit hours. Autumn Quarter. Four recitations each week. Music, fourth year. Prerequisites, Music 443, 481, and 483, and junior standing. Miss

Methods for junior and senior high schools. Testing of voices. Organization and drill of orchestras, glee clubs, etc.

611. Advanced School Music Methods. Four credit hours. Spring Quarter. Four recitations each week. Music, fourth year. Prerequisite, Music 610. Miss

Continuation of Music 610. The teaching of harmony, history, appreciation, etc., in the high school. Credit system for high school music. Review of the whole field of school music with special reference to the major problems of the supervisor.

620. Advanced Harmony. Three credit hours. Autumn Quarter. Three recitations each week. Music, fourth year. Prerequisites, Music 471, and junior standing. Miss

Study of modulation, non-harmonic tones and altered chords.

621. Advanced Harmony. Three credit hours. Winter Quarter. Three recitations each week. Music, fourth year. Prerequisite, Music 620. Miss

Continuation of Music 620.

NURSING

(See Public Health)

PHILOSOPHY

Office, 109 University Hall

PROFESSORS LEIGHTON, SABINE, CHANDLER, AND AVEY, MR. SHIMER, AND DEPARTMENT ASSISTANTS

The courses in philosophy are not open to Freshmen with the exception of 402, which is open to Freshmen who have completed two Quarters' work. Seniors receive full credit for 402.

The courses fall into three groups. Those in the first group (Nos. 401-415) are elementary in character and have no prerequisite. They are designed for students who desire an introduction to philosophy as systematic reflection on the meaning and aims of human civilization.

The courses in the intermediate group (Nos. 601-661) are more advanced and have prerequisites, although these prerequisites are not always in philosophy. These courses are

designed for students, whether intending to specialize in literature, the social or natural sciences, or in philosophy itself, who desire a more thorough acquaintance with the history of thought and with the fundamental issues of present-day science, religion, and practical life. Courses bearing numbers between 600 and 650 deal with various phases of the history of thought; courses bearing numbers between 650 and 700 are systematic, that is, they undertake to deal with current issues on their merits.

The following courses are relevant to all special interests since they deal with the most general underlying problems: 401, 402, 405, 408, 601, 602, 603, 605, 653, 656, 661.

Courses related to literature and fine arts: 407, 415, 608, 653.

Courses related to mathematics and natural science: 402, 652, 657, 661.

Courses related to social sciences, psychology, and education: 405, 407, 408, 605, 610, 652, 653, 656, 661.

Courses related to commerce and journalism: 405, 605, 606, 656.

Courses related to religion: 405, 407, 408, 605, 606, 608, 610, 653, 656, 661.

Students concentrating in philosophy may be guided by their special interests, but are advised to include 402, 405, 601, 602, 603, and 661 in their programs. Students looking forward to graduate work in philosophy should lay fully as much stress upon securing a sound general cultural and scientific training as upon the special work of this department.

401. Introduction to Philosophy. Five credit hours. One Quarter. Autumn, Winter, Spring. No prerequisite. All instructors.

The meaning and scope of philosophy, its typical problems and theories, its relations to the special sciences and to social life and religion.

402. Elementary Logic. Five credit hours. One Quarter. Autumn, Winter, Spring. No prerequisite. All instructors.

A study of the methods employed in the search for facts, the formulation and testing of general principles, and the application of principles to specific cases. Illustrations are drawn from the processes of common sense, science, history, and law.

405. Elementary Ethics. Five credit hours. One Quarter. Autumn, Winter, Spring. No prerequisite. Mr. Avey, Mr. Shimer.

An introductory study of the chief theories of the moral life. A natural continuation of this course will be found in Philosophy 605 or 656.

***407. Development of Hebrew Ideas in the Old Testament.** Five credit hours. Autumn Quarter. No prerequisite. Mr. Avey.

Methods of scholarly study of ancient historical documents are considered, and then applied to the writings of the Old Testament for the purpose of determining their chronological order. On this basis is developed a history of Hebrew ideas, including early tradition; the ideals of the prophets; legal formalism; religious poetry; the Messianic hope.

408. Origin and Development of Religious Ideas. Five credit hours. Winter Quarter. No prerequisite. Mr. Avey.

A general survey of the fundamental ideas of the most important historical religions, including primitive beliefs; Brahmanism; Buddhism; Confucianism; Mohammedanism; Judaism; the various forms of Christianity.

* Not given in 1927-1928.

415. Esthetics. Five credit hours. One Quarter. Autumn and Spring. No prerequisite. Mr. Chandler.

A study of the various fine arts including music and literature, and of the beauty of nature, with the aim of discovering their relation to human nature, their respective limitations, and the value for individual and social life.

FOR ADVANCED UNDERGRADUATES AND GRADUATES

Courses bearing numbers 601 to 650 are historical; courses bearing numbers 651 to 700 are systematic. Not open to Freshmen or Sophomores.

601. Ancient and Medieval Philosophy. Five credit hours. Autumn Quarter. Prerequisite, junior standing. Mr. Sabine.

The development of philosophical thought from the Greeks to the Middle Ages. Most of the time is devoted to Greek philosophy. A natural continuation of this course will be found in Philosophy 602.

602. Modern Philosophy. Five credit hours. Winter Quarter. Prerequisite, junior standing. Mr. Sabine.

The development of philosophical thought from the Renaissance to the middle of the nineteenth century. A natural continuation of this course will be found in Philosophy 603.

603. Contemporary Philosophy. Five credit hours. Spring Quarter. Prerequisite, Philosophy 602. Mr. Sabine.

The development of philosophical thought from the middle of the nineteenth century to the present.

605. The Problem of Human Life. Five credit hours. Winter Quarter. Prerequisite, junior standing. Mr. Chandler.

A historical and critical consideration of the ideals of human life and ethical principles, both individual and social, contributed to our culture by ancient Greece, Christianity, modern science, and modern humanism. The object of the course is to arrive at a systematic evaluation of the valid factors in an ethical philosophy of life.

***606. American Philosophy.** Three credit hours. Winter Quarter. Prerequisite, junior standing and Philosophy 401.

A survey of the chief philosophical standpoints which have entered into the constitution of the American mind since colonial times; the life and works of the thinkers whose theories are considered.

608. Philosophy and Poetry. Three credit hours. Autumn Quarter. Prerequisite, junior standing. Mr. Chandler.

A discussion of Lucretius, Dante's "Divine Comedy", and Goethe's "Faust", for the light they throw on the history of thought and the nature of poetic excellence.

†610. Origins of Christian Thought. Three credit hours. Prerequisite, Philosophy 401 or 601, or 407 or 408. Mr. Avey.

A historical inquiry into the content and meaning of the psychological, ethical,

* Not given in 1927-1928.

† Not given during the academic year, 1927-1928.

and metaphysical teaching of the New Testament; with an inquiry into the development of Christian thought up to the formation of the Nicene Creed, with especial reference to the influence of Greek philosophy thereon.

***623. Plato.** Three credit hours. Winter Quarter. Prerequisite, three Quarters in philosophy, including 401 or 601. Mr. Chandler.

Selected dialogues of Plato will be studied in Jowett's translation with reference to their permanent significance for philosophy, literature, and politics.

624. Aristotle and Plotinus. Three credit hours. Winter Quarter. Prerequisite, Philosophy 623. Mr. Chandler.

Selections from the writings of Aristotle and Plotinus will be studied with reference to their permanent significance for philosophy.

625. Representative Pre-Kantian Philosophers. Three credit hours. Autumn Quarter. Prerequisite, Philosophy 602. Mr. Shimer.

A few representative works of classic thinkers of the period from Bacon and Descartes to Kant will be selected for intensive study.

626. Representative Post-Kantian Idealists. Three credit hours. Winter Quarter. Prerequisite, Philosophy 602. Mr. Avey.

A few representative works of classic idealists of the period from Kant to Schopenhauer will be selected for intensive study.

627. Nineteenth Century Empiricists. Three credit hours. Spring Quarter. Prerequisite, Philosophy 602.

A study of John Stuart Mill and other positivists, and Herbert Spencer and other philosophical evolutionists.

652. Philosophy of Science. Three credit hours. Spring Quarter. Prerequisites, Philosophy 401 or 601, 402, and 602; and three Quarters of college science. Mr. Shimer.

An examination of the fundamental motives, assumptions, and methods of the natural and social sciences, with consideration of their influence on philosophical theories.

653. Philosophy of Religion. Three credit hours. Spring Quarter. Prerequisite, one of the following: Philosophy 401, 405, 407, 408, 601, 602, 610, 656, 665. Students are advised to take 408 as a background for this course. Mr. Avey.

The psychical and social nature of religion; a comparison of the leading ideas of the Vedanta, Buddhism, Platonism, and Christianity; a systematic examination of the fundamental religious conceptions—the idea of God in relation to the idea of the world, the idea of man, and the problem of human destiny.

656. Principles of Individual and Social Ethics. Five credit hours. Winter Quarter. Prerequisite, one of the following: Philosophy 401,

* Not given in 1927-1928.

405, 407, 408, 601, 602, Psychology 401-402, or Sociology 401-402. Mr. Leighton.

Systematic development of a philosophy of human values, and its application to the chief forms and activities of civilized life—industrial and economic activities, the state, education, culture, and religion. Emphasis is laid on the social function of education as being the most important instrument of individual welfare and social progress.

This course is not open to students who have credit for Philosophy 406.

657. Mathematical Logic. Three credit hours. Autumn Quarter. Prerequisite, Philosophy 402 or six Quarters of college mathematics.

The algebra of logic; relations, postulates, and deductive systems; the relation of mathematical logic to other types of logic, and its philosophical implications.

661. Nature and Man. Five credit hours. Autumn Quarter. Prerequisites, two of the following, with a standing of "B" or higher: Philosophy 401, 402, 601, 602, 603, or the consent of the instructor. Not open to Freshmen or Sophomores. Mr. Leighton.

A systematic consideration of the following topics: the nature of scientific method; the scientific conception of nature in its bearings on the problems of man; the nature of the self and society; the problem of values, and the problem of the meaning of existence as a whole.

This course is not open to students who have credit for Philosophy 662.

FOR GRADUATES

An undergraduate student shall not be permitted to take any course in the "800" group except by permission of the Graduate Council.

801. Seminary in Systematic Philosophy.

802. Seminary in Systematic Philosophy.

803. Seminary in Systematic Philosophy.

809-810-811. Research.

815-816-817. Seminary in Social and Political Philosophy.

***820. Philosophy of History.**

For description of graduate courses in this department see the Bulletin of the Graduate School.

PHYSICAL EDUCATION

MEN

Office, The Gymnasium

PROFESSORS ST. JOHN, WILCE, CASTLEMAN, AND NICHOLS, ASSISTANT PROFESSORS TRAUTMAN, COBB, AND OLSEN, MR. DUFFEE, MR. MOONEY, MR. STALEY, MR. HINDMAN, MR. WILLAMAN, MR. WOOD

Students in the College of Education may major in physical education. This course prepares for all types of positions of leadership in the field of physical education, athletic coaching, recreation, and health supervision.

* Not given in 1927-1928.

Students in the College of Education may take courses in physical education as a minor not to exceed thirty Quarter-credit hours, in addition to the required courses, 400, 401, 402, 403, on the approval of the Head of the Department of Physical Education and the Dean of the College of Education.

Juniors and Seniors not taking physical education as a minor, may elect one or more courses in addition to the courses required of all students. Such students may not elect in the aggregate more than nine Quarter-credit hours. In each case the approval of the Head of the Department and the Dean of the College of Education is necessary. Students in the Colleges of Agriculture, Arts, Commerce and Administration, and Engineering wishing to take these courses must secure permission of the Dean of their College and the Head of the Department of Physical Education.

All students who major or minor in physical education must consult with Mr. Nichols, of the department, each Quarter before handing in their schedules.

400. Hygiene. One credit hour. One Quarter. Autumn, Winter, Spring. One lecture each week. Required of every Freshman during one of his first three Quarters of residence in the University. Mr. Castleman, Mr. Nichols, Mr. Wilce, Mr. Duffee.

This course deals with the various factors and conditions which affect the health and efficiency of the student.

401. Physical Education. One credit hour. Autumn Quarter. Two hours each week. Required of every Freshman. All instructors.

The work in this course is based on a thorough physical examination and motor efficiency tests, given at the beginning of the entering Quarter, for the purpose of classifying the students into similar ability groups.

The course includes general body-building exercises, gymnastic and athletic games, and antagonistic sports, with advanced elective activities for the physically superior groups.

402. Physical Education. One credit hour. Winter Quarter. Two hours each week. Required of every Freshman. All instructors.

A continuation of Physical Education 401.

403. Physical Education. One credit hour. Spring Quarter. Two hours each week. Required of every Freshman. All instructors.

A continuation of Physical Education 402.

NOTE: The following courses in physical education are open to students in the College of Education as a major or minor. Students in the Colleges of Agriculture, Arts, Commerce and Administration, and Engineering wishing to take these courses must secure permission of the Dean of their College and the Head of the Department of Physical Education.

441. Theory and Practice of Physical Education (Men). Two credit hours. Autumn Quarter. One lecture and three laboratory periods each week. Physical Education, second year. Mr. Hindman.

A consideration by discussion and readings of the mental and physical growth and development during early and later childhood. The purpose will be to acquaint the student with the interests and tendencies which occur during the various age periods

and prepare him for the adaptation of physical activities to the individual. Practice and instruction in methods of teaching volley ball, playground ball, soccer, speed-ball, cage-ball, hand-ball, squash and tennis.

442. Theory and Practice of Physical Education (Men). Two credit hours. Winter Quarter. One lecture and three laboratory periods each week. Physical Education, second year. Prerequisite, Physical Education 441. Mr. Hindman, Mr. Mooney, Mr. Staley.

A continuation of the study of growth and development during the early and later adolescence and a consideration of the function of play and recreation and the organization of play activities in the school curriculum and on the playground. Practice and instruction in methods of teaching personal combat activities, boxing, wrestling, fencing, and instruction in swimming, diving, and life saving methods.

443. Theory and Practice of Physical Education (Men). Two credit hours. Spring Quarter. One lecture and three laboratory periods each week. Physical Education, second year. Prerequisite, Physical Education 441-442. Mr. Castleman.

Study and practice in the theory, method, and mechanics of coaching track and field events.

NOTE: Physical Education 441-442-443 form a unit of work which is required in the curriculum in Physical Education and may be elected by other students in the College of Education.

445. Theory and Practice of Physical Education (Men). Three credit hours. Autumn Quarter. Two lectures and three laboratory periods each week. Physical Education, third year. Prerequisite, Physical Education 441-442-443. Mr. Cobb.

A consideration of the more formalized types of activities and their application in elementary and secondary schools and colleges. Practice and instruction in methods of teaching, marching tactics, postural exercises, calisthenics, gymnastic drills, heavy and light apparatus, and mat work.

446. Theory and Practice of Physical Education (Men). Three credit hours. Winter Quarter. Two lectures and three laboratory periods each week. Physical Education, third year. Prerequisite, Physical Education 441-442-443 and 445. Mr. Wilce, Mr. Willaman.

Study and practice in the strategy and mechanics of directing football including a consideration of football rules, football fundamentals, individual and team play, offensive and defensive formations, organization and practice periods and educational values of sports.

447. Theory and Practice of Physical Education (Men). Three credit hours. Spring Quarter. Two lectures and three laboratory periods each week. Physical Education, third year. Prerequisites, Physical Education 441-442-443, and 445-446. Mr. St. John, Mr. Trautman.

Study and practice in the theory, strategy, and mechanics of coaching baseball including batting, base-running, and the playing of all positions.

NOTE: Physical Education 445-446-447 form a unit of work which is required in the curriculum in Physical Education and may be elected by other students in the College of Education.

449. Theory and Practice of Physical Education (Men). Three credit hours. Autumn Quarter. Two lectures and three laboratory periods each week. Physical Education, fourth year. Prerequisites, Physical Education 441-442-443 and 445-446-447. Mr. Olsen.

Study and practice in the theory, strategy, and mechanics of directing basketball, including various systems of offense and defense and team play, passing, goal throwing, dribbling, pivoting, organization of practice periods, judgment and psychology in handling of men.

450. Theory and Practice of Physical Education (Men). Three credit hours. Winter Quarter. Two lectures and three laboratory periods each week. Physical Education, fourth year. Prerequisites, Physical Education 441-442-443, 445-446-447 and 449. Mr. Staley, Mr. Wood.

A consideration of methods of progression, nomenclature and the organization of programs in physical education. A consideration of intramural activities and their place in the school program. Practice in light and heavy apparatus work, tumbling, athletic and folk dancing.

451. Theory and Practice of Physical Education (Men). Three credit hours. Spring Quarter. Two lectures and three laboratory periods each week. Physical Education, fourth year. Prerequisites, Physical Education 441-442-443, 445-446-447 and 449-450. Mr. St. John, Mr. Wilce, Mr. Nichols, Mr. Cobb.

Review of technique and methods in coaching the major sports together with a consideration of tennis, golf, summer camp and boy-scout activities.

NOTE: Physical Education 449-450-451 form a unit of work which is required in the curriculum in Physical Education and may be elected by other students in the College of Education.

†473. First Aid. One credit hour. Two lectures each week. Mr. Duffee.

Principles and methods of first aid, emphasizing conditions arising in connection with physical education. The satisfactory completion of this course carries with it a Red Cross certificate.

†481. Organization and Administration of Physical Education in Secondary Schools for Men. One credit hour. Two lectures each week. Mr. St. John, Mr. Trautman.

A consideration of the problems of organization for general physical education activities including ideals, standards, and methods in the administration of competitive athletics.

†482. Play and Playground. Two or three credit hours. Four lectures and four laboratory periods each week.

Lectures on play theory, recreation, plays and games, and other playground activities, including supervision and practice teaching on the University playground. Emphasis will be placed on the organization of games for the school playground.

† Not given during the academic year, 1927-1928.

†490. **Gymnastics for the Lower Grades.** Two credit hours. Two lectures and four laboratory hours each week. Miss Clark.

Gymnastics and games suitable for the lower grades. Discussion of technique of teaching. Practice in gymnastics.

This course is not open to students who have credit for Physical Education 483 or 484.

†491. **Gymnastics for the Upper Grades.** Two credit hours. Two lectures and four laboratory hours each week.

A graded course of theory and practice in free-hand and light apparatus gymnastics. Adapted to junior high and secondary schools.

This course is not open to students who have credit for Physical Education 484 or 488.

493. **Therapeutic Gymnastics and Physical Examinations.** Three credit hours. Spring Quarter. Two lectures and three laboratory periods each week. Physical Education, third year. Prerequisites, Anatomy 412 and Physiology 403-404. Mr. Duffee.

Lectures, recitations, and practice, dealing with the theory and mechanics of postural defects, with practice in giving exercises suitable for each condition. Exercise for remedial work will enable the student to carry out the prescription of a physician. The course includes a discussion of the physical examination and methods used in normal diagnosis.

†501. **Principles of Coaching Football.** Two credit hours. Two lectures and four laboratory hours each week. Mr. St. John, Mr. Olsen.

A consideration of football rules, football fundamentals, individual and team play, offensive and defensive formations, pedagogy, and methods of coaching.

*502. **Advanced Football Technique.** One credit hour. Two lectures each week. Prerequisite, Physical Education 501, and permission of instructor. Mr. St. John, Mr. Trautman.

Lectures and reports. Consideration of plays, methods, generalship, and special problems.

†504. **Principles of Coaching Basketball.** One credit hour. Two lectures and two laboratory hours each week. A knowledge of the rules of basketball is prerequisite. Mr. Olsen.

A study of individual and team play, offensive and defensive practice methods.

†508. **Principles of Coaching Track and Field Sports.** One credit hour. Two lectures and two laboratory hours each week. Mr. Olsen.

Instruction and practical demonstration in the usual track and field events.

†512. **Principles of Coaching Baseball.** One credit hour. Two lec-

* Not given in 1927-1928.

† Not given during the academic year, 1927-1928.

tures and two laboratory hours each week. A knowledge of baseball rules is considered prerequisite. Mr. Trautman.

A study of batting, base running, playing all positions, methods of coaching, a full treatment of fundamentals.

ELECTIVE COURSES FOR MEN DISQUALIFIED FOR MILITARY SCIENCE

525. Physical Education. One credit hour. Autumn Quarter. Three hours each week. Open to Freshmen disqualified for elementary courses in Military Science. All instructors.

This course is similar in content to Physical Education 401.

526. Physical Education. One credit hour. Winter Quarter. Three hours each week. Open to Freshmen disqualified for elementary courses in Military Science. All instructors.

This course is similar in content to Physical Education 402.

527. Physical Education. One credit hour. Spring Quarter. Three hours each week. Open to Freshmen disqualified for elementary courses in Military Science. All instructors.

This course is similar in content to Physical Education 403.

528. Physical Education. One credit hour. Autumn Quarter. Three hours each week. Open to Sophomores disqualified for elementary courses in Military Science. All instructors.

This course offers advanced training and instruction in various athletic sports.

529. Physical Education. One credit hour. Winter Quarter. Three hours each week. Open to Sophomores disqualified for elementary courses in Military Science. All instructors.

This course offers advanced training and instruction in various athletic sports.

530. Physical Education. One credit hour. Spring Quarter. Three hours each week. Open to Sophomores disqualified for elementary courses in Military Science. All instructors.

This course offers advanced training and instruction in various athletic sports.

FOR ADVANCED UNDERGRADUATES AND GRADUATES

682. Organization and Administration of Physical Education. Five credit hours. Winter Quarter. Five lectures each week. Physical Education, fourth year. Prerequisite, Physiology 403-404 and Physical Education 683. Open to Seniors and graduate students. Mr. St. John, Miss Clark, Mr. Trautman.

A consideration of the problems of organization for physical education in elementary and secondary schools and colleges, including standards and methods in admin-

istration of interscholastic, intercollegiate, and intramural athletics. The first eight lectures will deal with problems common to both men and women's work. Thereafter, the women's classes will be conducted separately, with emphasis on problems peculiar to this field. The personnel of a department, athletic and gymnastic facilities, and construction, purchase and care of equipment, keeping of records and reports, handling of finances, schedule making, publicity, insignia and awards, managerial systems, scholastic and athletic eligibility, and professionalism, will be included in the problems discussed.

683. History and Principles of Physical Education. Five credit hours. Winter Quarter. Five lectures each week. Physical Education, third year. Prerequisites, Physiology 403-404, or 401-402, and Psychology 401. Open to Juniors, Seniors, and graduate students. Mr. Wilce.

An historical survey of physical education beginning with that of Greece and including contemporary developments and a consideration of the biological and educational aspects of physical education, with special reference to its place in education.

This course is not open to students who have credit for Physical Education 681.

685. Prevention and Care of Injuries, Including Training of Athletes. Three credit hours. Autumn Quarter. Three lectures each week. Physical Education, fourth year. Prerequisites, Physiology 403-404, or 401-402, and Public Health 401 or their equivalent. Mr. Duffee.

A consideration of the methods of prevention and care of injuries, especially emphasizing dangers and conditions arising in connection with physical education, and the condition of athletes for athletic contests.

691. Kinesiology. Three credit hours. Autumn Quarter. Three lectures each week. Physical Education, third year. Prerequisites, Anatomy 412 and Physiology 403-404. Open to Juniors, Seniors, and graduate students. Mr. Duffee.

Lectures and recitations dealing with the anatomical mechanism of movements. The purpose of the course is to acquaint the student with means of analyzing movements intelligently and prescribing programs of gymnastics, sports, and dancing for developmental or corrective purposes.

692. Hygiene and School Health Problems. Three credit hours. Winter Quarter. Three lectures each week. Physical Education, fourth year. Prerequisites, Chemistry 401-402 or 411-412 and Physiology 403-404. Open to Seniors and graduate students. Mr. Nichols.

A consideration of methods, courses of study and material used in health instruction in schools and colleges, together with discussions of medical inspection, symptoms and control of the common school diseases, problems relating to the health environment of the school child and the teacher.

WOMEN

Office, Pomerene Hall

PROFESSORS CLARK AND JONES, ASSISTANT PROFESSORS PALMER AND HERSEY, MISS SUMPTION, MISS GILMAN, MISS CHENEY, MISS ALWAY, MISS SCHLEMAN, MISS HALL

Students in the College of Education may take courses in physical education as a minor not to exceed thirty Quarter-credit hours, in addition to the required courses,

400, 421, 422, 423, 425, 426, 427, on the approval of the Head of the Department of Physical Education and the Dean of the College of Education.

Juniors and Seniors not taking physical education as a minor, may elect one or more courses in addition to the courses required of all students. Such students may not elect in the aggregate more than nine Quarter-credit hours. The approval of the Head of the Department and the Dean of the College of Education is necessary.

400. Hygiene. One credit hour. One Quarter. Autumn, Winter, Spring. One lecture each week. Required of every Freshman during one of her first three Quarters of residence in the University. Miss Jones.

This course deals with the various factors and conditions which affect the health and efficiency of the student.

421. Physical Education. One credit hour. Autumn Quarter. Two hours each week. Required of every Freshman. All instructors.

The work includes outdoor sports—hockey, tennis, archery, swimming, interpretative dancing and corrective gymnastics.

422. Physical Education. One credit hour. Winter Quarter. Two hours each week. Required of every Freshman. All instructors.

This work includes basketball, gymnastics, interpretative dancing, swimming, and corrective work.

423. Physical Education. One credit hour. Spring Quarter. Two hours each week. Required of every Freshman. All instructors.

This work includes baseball, tennis, field and track, archery, swimming, and interpretative dancing.

425. Physical Education. One credit hour. Autumn Quarter. Three hours each week. Required of all Sophomores. All instructors.

A continuation of Physical Education 421, 422, and 423.

426. Physical Education. One credit hour. Winter Quarter. Three hours each week. Required of all Sophomores. All instructors.

A continuation of Physical Education 425.

427. Physical Education. One credit hour. Spring Quarter. Three hours each week. Required of all Sophomores. All instructors.

A continuation of Physical Education 426.

NOTE: Students planning to major in Physical Education should consult the Director of Physical Education for Women regarding selection of activities offered in Physical Education 421, 422, 423, 425, 426, and 427.

NOTE: The following courses in Physical Education are open to students in the College of Education. Students in the Colleges of Agriculture, Arts, Commerce and Administration, and Engineering wishing to take these courses must secure permission of the Dean of their College and the Head of the Department of Physical Education.

†461. **Elementary Folk Dancing.** Two credit hours. One lecture hour and four laboratory periods each week.

Dramatic games and simple folk dances for use in the elementary school are given. During the class hour, there are short talks and discussions on the value of folk dancing as an educational activity and the methods of presenting the material. Opportunity is provided for practice teaching in the class.

†462. **Intermediate Folk Dancing.** Two credit hours. One lecture hour and four laboratory periods each week.

This course comprises a study of folk and national dances suitable for use in the upper grades and secondary schools. There are lectures on the history of folk dancing, and also discussions on the culture of the countries whose dances are studied. Opportunity is given for practice teaching.

†464. **Elementary Interpretative Dancing.** One credit hour. Four laboratory hours each week.

Rhythms are given which may be used in the elementary grades. Fundamental exercises involving big muscle groups for the purpose of establishing correct habits of muscular control. The elements of the structure of music are considered and a keener appreciation of it sought through movement. Dance themes and simple musical selections are studied.

†466. **Intermediate Interpretative Dancing.** One credit hour. Four laboratory hours each week. Prerequisite, Physical Education 464 or its equivalent.

The course seeks to develop creative self-expression through the study of dance themes and the interpretation of music by means of rhythmic movement. Discussions are held on the philosophy of the dance. Emphasis is placed on work for the upper grades and high school.

†470. **Sports Technique.** Two credit hours. Two lectures and four one-hour laboratory periods each week.

An elementary course in the strategy and technique of track and field sports, soccer, and highly organized games.

†471. **Sports Technique.** Two credit hours. Two lectures and four one-hour laboratory periods each week.

An elementary course in the strategy and technique of basketball, baseball, and volley ball.

†473. **First Aid.** One credit hour. Two lectures each week. Mr. Duffee.

Principles and methods of first aid, emphasizing conditions arising in connection with physical education. A satisfactory completion of this course carries with it a Red Cross certificate.

†480. **Organization and Administration of Physical Education for Women.** One credit hour. Two lectures each week. Miss Clark.

A consideration of the problems of organization of physical education in elementary and secondary schools. Emphasis is placed on methods of organizing work for children

† Not given during the academic year, 1927-1928.

and women. A special course in organization of physical education to be taught especially to women.

†482. Play and Playground. Three credit hours. Four lectures and four laboratory periods each week.

Lectures on play theory, recreation, plays, and games, and other playground activities including supervision and practice teaching on the University playground. Emphasis will be placed on the organization of games for the school playground.

†490. Gymnastics for the Lower Grades. Two credit hours. Two lectures and four laboratory hours each week. Miss Clark.

Gymnastics and games suitable for the lower grades. Discussion of technique of teaching. Practice in gymnastics.

This course is not open to students who have credit for Physical Education 483 or 484.

†491. Gymnastics for the Upper Grades. Two credit hours. Two lectures and four laboratory hours each week.

A graded course of theory and practice in free-hand and light apparatus gymnastics. Adapted to junior high and secondary schools.

This course is not open to students who have credit for Physical Education 484 or 488.

493. Therapeutic Gymnastics and Physical Examinations. Three credit hours. Spring Quarter. Two lectures and three laboratory periods each week. Physical Education, third year. Prerequisites, Anatomy 412 and Physiology 403-404. Miss Gilman.

Lectures, recitations, and practice, dealing with the theory and mechanics of postural defects, with practice in giving exercises suitable for each condition. Exercise for remedial work will enable the student to carry out the prescription of a physician. The course includes a discussion of the physical examination and methods used in diagnosis of physical defects.

†495. Elementary and Intermediate Swimming. One credit hour. Four laboratory hours each week.

Instruction and practice in swimming for those wishing to learn to swim.

†496. Advanced Swimming. One credit hour. Four laboratory hours each week.

Instruction and practice for advanced swimmers.

†497. Advanced Swimming and American Red Cross Life Saving. One credit hour. Four laboratory hours each week.

Instruction and practice in advanced swimming and life saving.

541. Theory and Practice of Physical Education (Women). Three credit hours. Autumn Quarter. Two lectures and four laboratory periods

† Not given during the academic year, 1927-1928.

each week. Physical Education, second year. Miss Clark, Miss Hersey.

Lectures, discussions, and readings on the mental and physical growth and development during early and later childhood. The purpose of the course will be to acquaint the student with the interests and tendencies which occur during the various age periods and in a measure prepare him for adaptation of physical activities to the individual. Practice in the development of the fundamental muscles by movements based on natural coordinations. Plays and games of simple organization will be given together with discussions concerning the place of games in the school curriculum.

542. Theory and Practice of Physical Education (Women). Three credit hours. Winter Quarter. One lecture and six laboratory hours each week. Physical Education, second year. Prerequisite, Physical Education 541. Miss Clark, Miss Cheney, Miss Hersey.

A study of the mental and physical growth during early and late adolescence. Practice in elementary rhythmic expression which will include a study of the simple elements of music. Practice will be given in the development of fundamental movements which will permit a controlled dynamic response of the body to music. Formal gymnastics which will include marching, elementary free-standing gymnastics, and apparatus work on booms, ladders, ropes, vaulting box, horse and buck. Games for upper grades and high school will be given.

543. Theory and Practice of Physical Education (Women). Three credit hours. Spring Quarter. Two lectures and four laboratory periods each week. Physical Education, second year. Prerequisites, Physical Education 541-542. Miss Hersey, Miss Cheney.

A consideration of the adaptation of physical activities to the individual at different age periods with emphasis placed on the type of activity which will make for better adjustment of the individual to a modern environment. Practice will be given in interpretative dancing and elementary folk dancing which is suitable for the elementary school. Opportunity will be given for practice teaching. Discussion will be given on the national characteristics of these dances and the correlation of this work with the course of study in the public schools.

NOTE: Physical Education 541-542-543 form a unit of work which is required in the curriculum in Physical Education and may be elected by other students in the College of Education.

545. Theory and Practice of Physical Education (Women). Three credit hours. Autumn Quarter. Two lectures and four laboratory periods each week. Physical Education, third year. Prerequisites, Physical Education 541-542-543. Miss Sumption, Miss Cheney.

A consideration of the methods of teaching hockey and soccer. Discussions of methods of play, plans for development of advanced technique and organization of the season's work. Practice will be given in teaching college groups under supervision. Opportunity will be given for the election of these sports during the season's work.

546. Theory and Practice of Physical Education (Women). Three credit hours. Winter Quarter. Two lectures and four laboratory periods each week. Physical Education, third year. Prerequisites, Physical Education 541-542-543 and 545. Miss Palmer, Miss Hersey.

A consideration of the methods of teaching basketball, which includes discussions of methods of play, plans for development of advanced technique and organization of the season's work. A survey of gymnastic material followed by discussions of methods of

teaching. Practice in the organization of lesson plans. Opportunity will be given for practice in teaching groups of college students under careful supervision. Practice in free-standing gymnastics of a medium degree of difficulty. Attention will be given to the selection of gymnastic material which is adapted to elementary and secondary schools.

547. Theory and Practice of Physical Education (Women). Three credit hours. Spring Quarter. Two lectures and four laboratory periods each week. Physical Education, third year. Prerequisites, Physical Education 541-542-543 and 545-546. Miss Palmer, Miss Sumption.

Discussion of the methods of teaching field and track and baseball. Time will be spent in study of the rules of play, methods of developing skill and organizations of the season's work. Practice in coaching college groups under careful supervision. Opportunity will be offered to elect these sports during the season.

NOTE: Physical Education 545-546-547 form a unit of work which is required in the curriculum in Physical Education and may be elected by other students in the College of Education.

549. Theory and Practice of Physical Education (Women). Three credit hours. Autumn Quarter. Two lectures and four laboratory periods each week. Physical Education, fourth year. Prerequisites, Physical Education 541-542-543 and 545-546-547. Miss Sumption, Miss Alway.

A consideration of the methods of teaching swimming, Danish gymnastics and archery. Discussion of the rules of play in soccer, together with the methods of teaching beginners fundamental strokes in swimming. Practice will be given in advanced gymnastics and opportunity for work which may be used by college women, and in addition gymnastics which may be used for the Y. W. C. A. and community centers.

550. Theory and Practice of Physical Education (Women). Three credit hours. Winter Quarter. Two lectures and four laboratory periods each week. Physical Education, fourth year. Prerequisites, Physical Education 541-542-543, 545-546-547, and 549. Miss Cheney, Miss Sumption.

Lectures, discussions and readings dealing with the philosophy of the dance. The relation of the dance to the drama and the organization of dancing in festivals and pageants. Attention will be given to the selection of music, line and color. Practice in advanced work in rhythmic expression and advanced folk dancing. Attention will be given to the adaptation of this work to secondary schools and colleges. Opportunity will be given for practice in advanced gymnastics.

551. Theory and Practice of Physical Education (Women). Three credit hours. Spring Quarter. Two lectures and four laboratory periods each week. Physical Education, fourth year. Prerequisites, Physical Education 541-542-543, 545-546-547, and 549-550. Miss Palmer, Miss Hersey, Miss Schleman.

A consideration of the administration of the school playground. Discussions of organization of community recreation and scouting groups. Time will be spent in observation and practice work with groups of children. Discussions will be given on the technique of tennis as well as methods of teaching the sport.

NOTE: Physical Education 549-550-551 form a unit of work which is required in the curriculum in Physical Education and may be elected by other students in the College of Education.

FOR ADVANCED UNDERGRADUATES AND GRADUATES

671. Therapeutic Gymnastics, Advanced (Women). Three credit hours. Autumn Quarter. Two lectures and three laboratory periods each week. Physical Education, fourth year. Prerequisites, Anatomy 412, Physiology 403-404, and Physical Education 493. Miss Jones, Miss Gilman.

Lectures and discussions of therapeutic gymnastics in elementary and secondary schools and colleges. Opportunity will be given for observation and practice in college groups and clinics. Practice will be given in first aid and massage.

682. Organization and Administration of Physical Education. Five credit hours. Winter Quarter. Five lectures each week. Physical Education, fourth year. Prerequisites, Physiology 403-404 and Physical Education 683. Open to Seniors and graduate students. Mr. St. John, Miss Clark, Mr. Trautman.

A consideration of the problems of organization for physical education in elementary and secondary schools and colleges, including standards and methods in administration of interscholastic, intercollegiate, and intramural athletics. The first eight lectures will deal with problems common to both men and women's work. Thereafter, the women's classes will be conducted separately, with emphasis on problems peculiar to this field. The personnel of a department, athletic and gymnastic facilities, and construction, purchase and care of equipment, keeping of records and reports, handling of finances, schedule making, publicity, insignia and awards, managerial systems, scholastic and athletic eligibility, and professionalism, will be included in the problems discussed.

683. History and Principles of Physical Education. Five credit hours. Winter Quarter. Five lectures each week. Physical Education, third year. Prerequisites, Physiology 403-404 and Psychology 401. Open to Juniors, Seniors, and graduate students. Mr. Wilce.

An historical survey of physical education beginning with that of Greece and including contemporary developments and a consideration of the biological and educational aspects of physical education, with special reference to its place in education.

This course is not open to students who have credit for Physical Education 681.

691. Kinesiology. Three credit hours. Autumn Quarter. Two lectures and three laboratory periods each week. Physical Education, third year. Prerequisites, Anatomy 412 and Physiology 403-404. Open to Juniors, Seniors, and graduate students. Miss Sumption.

Lectures and recitations dealing with the anatomical mechanism of movements. The purpose of the course is to acquaint the student with means of analyzing movements intelligently and prescribing programs of gymnastics, sports, and dancing for developmental or corrective purposes.

692. Hygiene and School Health Problems. Three credit hours. Winter Quarter. Three lectures each week. Physical Education, fourth year. Prerequisites, Chemistry 401-402 or 411-412 and Physiology 403-

404. Open to Seniors and graduate students. Miss Jones, Mr. Nichols.

A consideration of methods, courses of study and material used in health instruction in schools and colleges, together with discussion and medical inspection, symptoms and control of the common school diseases, problems relating to the health environment of the school child and the teacher.

PHYSICS

Office, 107 Mendenhall Laboratory

PROFESSORS COLE, EARHART, BLAKE, AND ALPHEUS W. SMITH, ASSISTANT
PROFESSORS HEIL AND ALVA W. SMITH, MR. SNYDER, MR.
SAPPENFIELD, AND DEPARTMENT ASSISTANTS

401. General Physics: Mechanics and Heat. Five credit hours. One Quarter. Autumn and Spring. Four lectures and recitations and one two-hour laboratory period each week. Prerequisite, two units of high school mathematics. Mr. Meara.

An introductory course in general physics.

This course is not open to students who have entrance credit for physics.

402. General Physics: Sound, Light, Electricity. Five credit hours. Winter Quarter. Four lectures and recitations and one two-hour laboratory period each week. Prerequisite, Physics 401. Mr. Meara.

An elementary course in general physics.

This course is not open to students who have entrance credit for physics.

403. General Physics: Mechanics and Heat. Five credit hours. Autumn Quarter. Four lectures and recitations and one two-hour laboratory period each week. Prerequisites, two entrance units in mathematics, one entrance unit in physics, and knowledge of plane trigonometry. Mr. Earhart, Mr. Sappenfield, Mr. Meara.

A course in general physics for students who have had physics in high school.

404. General Physics: Sound, Light, Electricity. Five credit hours. Winter Quarter. Four lectures and recitations and one two-hour laboratory period each week. Prerequisite, Physics 403. Mr. Earhart, Mr. Blake.

A course in general physics for students who have had physics in high school.

FOR ADVANCED UNDERGRADUATES AND GRADUATES

602. Advanced Laboratory: Mechanics and Heat. Three credit hours. One Quarter. Autumn and Spring. Two three-hour laboratory periods each week. Prerequisite, three Quarters of college physics. Mr. Heil.

603. Advanced Laboratory: Radiation. Three credit hours. Winter Quarter. Two three-hour laboratory periods each week. Prerequisite, three Quarters of college physics. Mr. Heil.

An advanced laboratory course in exact measurements of indices of refraction, wave length, dispersion, polarization, absorption, spectrum analysis, etc.

604. Advanced Laboratory: Electrical Measurements. Three credit hours. One Quarter. Autumn and Spring. Two three-hour laboratory periods each week. Prerequisite, three Quarters of college physics. Mr. Alva Smith.

An advanced laboratory course in exact measurements of currents, resistances and electromotive forces, magnetic permeability, capacity and inductance, use of oscillograph in the study of alternating and transient currents.

607. Advanced Light. Four credit hours. Autumn Quarter. Three lectures and recitations and one two-hour laboratory period each week. Prerequisites, Mathematics 441-442-443 and three Quarters of college physics. Mr. Cole.

Lenses, systems of lenses, cardinal points, defects of images and their correction, optical instruments, spectroscopy, plane gratings, concave gratings, the ultra-violet, the infra-red, diffraction, interference, interferometers, photometry, spectrophotometer, polarization, optical rotation, displacement currents, Hertzian waves, dispersion theory, anomalous dispersion, rest-strahlen, X-rays and their spectra, K and L series, Quantum theory, Zeeman and Stark effects, atom models, Bohr theory.

608. Advanced Electricity. Four credit hours. Winter Quarter. Four lectures and recitations each week. Prerequisites, Mathematics 441-442-443 and three Quarters of college physics. Mr. Earhart.

An introductory course in the mathematical theory of electricity and magnetism.

609. Molecular Physics and Heat. Four credit hours. Autumn Quarter. Four lectures and recitations each week. Prerequisites, Mathematics 441-442-443 and three Quarters of college physics. Mr. Earhart.

A study of the kinetic theory of gases, capillarity, osmosis, and related topics.

610. Conduction of Electricity through Gases and Radioactivity. Four credit hours. Winter Quarter. Four lectures and recitations each week. Prerequisites, Mathematics 441-442-443 and three Quarters of college physics. Mr. Heil.

An introductory course on the passage of electricity through gases and evacuated tubes, ionic velocities, photo-electricity, determination of the elementary charge, discharge of electricity from incandescent solids, radioactive properties of matter, etc.

NOTE: TEACHING COURSES. For the Teaching Course in this department see the Department of Principles of Education, Course 755.

FOR GRADUATES

An undergraduate student shall not be permitted to take any course in the "800" group except by permission of the Graduate Council.

- *801. Advanced Theory of Light.
- *802. Advanced Theory of Light.
- 803. Thermo-dynamics.
- 804. Thermo-dynamics.
- *805. Theory of Electricity and Magnetism.
- *806. Theory of Electricity and Magnetism.
- *807. Theory of Electricity and Magnetism.
- *809. Theory of Oscillations.
- *810. Theory of Oscillations.
- *811. Theory of Oscillations.
- 812. Seminary in Physics.
- 813. Electronic Theory and Atomic and Molecular Structure.
- 814. Electronic Theory and Atomic and Molecular Structure.
- 815. Electronic Theory and Atomic and Molecular Structure.
- 817. Theoretical and Quantum Mechanics.
- 818. Theoretical and Quantum Mechanics.
- 819. Theoretical and Quantum Mechanics.
- *821. Conduction of Electricity through Gases.
- 822. Radioactivity.
- 830. Research Laboratory.
- 831. Research Laboratory.
- 832. Research Laboratory.
- 851-852. Seminary in Theoretical Physics.

For description of graduate courses in this department see the Bulletin of the Graduate School.

PHYSIOLOGY

Office, Hamilton Hall

PROFESSORS HOSKINS AND BLEILE, ASSISTANT PROFESSORS SEYMOUR, McPEEK, AND E. P. DURRANT, MR. HITCHCOCK, MR. LEE, MR. R. R. DURANT, AND DEPARTMENT ASSISTANTS

401. Elementary Physiology. Five credit hours. Autumn Quarter. Five hours of lectures or recitations each week. Not open to Freshmen.

* Not given in 1927-1928.

Open to students having no credit in chemistry; students having credit in chemistry will elect Physiology 403. Mr. Bleile and assistants.

A course presenting the principles of physiology in a non-chemical manner; otherwise similar to Physiology 403.

This course is not open to students who have credit for any courses in physiology.

402. Elementary Physiology. Five credit hours. Winter Quarter. Five hours of lectures or recitations each week. Prerequisite, Physiology 401. Mr. Bleile and assistants.

A continuation of Physiology 401, presenting in a non-chemical manner the physiological phenomena outlined in Physiology 404.

403. Elementary Physiology. Five credit hours. One Quarter. Autumn and Winter. Three hours of lectures or recitations and four hours of laboratory each week. Home Economics, third year. Prerequisite, one Quarter of chemistry. Not open to Freshmen. Mr. Bleile, Mr. Seymour, Mr. E. P. Durrant, Mr. Hitchcock, Mr. Lee, and assistants.

A foundation course in the fundamental principles of animal physiology, including the chemical and physical structure of animate matter; the reactions involved in animals, including the human body in responding to environmental conditions; the formation, structure, and functions of blood and lymph; and the fundamental structure of the nervous system with particular emphasis on reflex actions. A survey of the conditions determining the activities of living forms.

This course is not open to students who have credit for any courses in physiology.

404. Elementary Physiology. Five credit hours. One Quarter. Winter and Spring. Three hours of lectures or recitations and four hours of laboratory each week. Home Economics, third year. Prerequisite, Physiology 403. Not open to Freshmen. Mr. Bleile, Mr. Seymour, Mr. E. P. Durrant, Mr. Hitchcock, Mr. Lee, and assistants.

A continuation of Physiology 403. It presents the phenomena and relationships involved in circulation, respiration, foods, digestion, metabolism, excretion, and the endocrine organs, with a brief survey of the nervous system including the special senses.

406. General Physiology. Five credit hours. Spring Quarter. Three hours of lectures and recitations and four hours of laboratory each week. Prerequisites, one Quarter of chemistry and one Quarter of zoology or physiology. Mr. Hitchcock.

This course deals in a broad way with the physiological manifestations of life, especially as seen in lower forms. A study is made of the physico-chemical constitution of living matter, surface tension in relation to life, diffusion and osmotic pressure, the physiological significance of the colloidal state, the part played by electrolytes in vital phenomena, and the reactions of the organism to environmental changes.

FOR ADVANCED UNDERGRADUATES AND GRADUATES

601. Advanced Physiology. Five credit hours. Autumn Quarter. Two lecture or quiz and nine laboratory hours each week. Prerequisite,

Physiology 403-404 or equivalent biological training. Mr. McPeck, Mr. R. R. Durant, and assistants.

This course deals with the physiology of the contractile tissues, reflexes, lymph, blood, and circulation. It is based primarily upon individual laboratory work.

602. Advanced Physiology. Five credit hours. Winter Quarter. Two lecture or quiz and nine laboratory hours each week. Prerequisite, Physiology 403-404 or equivalent biological training. Mr. McPeck, Mr. R. R. Durant, and assistants.

A study of respiration, digestion, excretion, metabolism, central nervous system and sense organs, based upon laboratory experiments on frogs, turtles and mammals.

603. Advanced Physiology. Two credit hours. Spring Quarter. Two quiz hours each week. Prerequisites, Physiology 601 and 602. Mr. Hoskins.

The application of the data of Physiology 601 and 602 to certain clinical conditions.

FOR GRADUATES

An undergraduate student shall not be permitted to take any course in the "800" group except by permission of the Graduate Council.

801. Research Physiology: Minor.

802. Research Physiology: Minor.

803. Research Physiology: Minor.

804. Research Physiology: Major.

805. Research Physiology: Major.

806. Research Physiology: Major.

For description of graduate courses in this department see the Bulletin of the Graduate School.

POLITICAL ECONOMY

(See Economics and Sociology)

POLITICAL SCIENCE

Office, 102 University Hall

PROFESSORS SPENCER AND COKER, MR. PADDOCK, MR. HELMS,
AND DEPARTMENT ASSISTANTS

401. American Federal Government. Five credit hours. One Quarter. Autumn, Winter, Spring. It is strongly recommended that this course be preceded by two Quarters in college history; it must precede all other courses in this department. Not open to Freshmen. All instructors.

A general survey of the Constitution: the organization and functions of the national government; its relation to the states; political parties.

402. Government and Politics of Foreign Countries. Five credit hours. One Quarter. Autumn, Winter, Spring. Prerequisite, Political Science 401. All instructors.

A study of the governments of England, France, Germany, Switzerland, and other countries of chief interest. Special attention will be given to characteristic institutions, such as the English cabinet system, French administrative organization and justice. Swiss direct democracy; proportional representation; the problem of self-government and empire.

403. American State and Local Government. Five credit hours. One Quarter. Winter and Spring. Prerequisites, Political Science 401, and (except by special permission) 402. All instructors.

A general survey of state constitutions, and of the structure and functions of state and local institutions in the United States.

FOR ADVANCED UNDERGRADUATES AND GRADUATES

604. State Legislative and Administrative Problems. Three credit hours. Spring Quarter. Three meetings each week. Prerequisites, Political Science 401 and 403.

The scope of state powers and activities; problems and methods of state government in the fields of finance, business and industrial regulation, and legislative procedure; the executive budget and administrative reorganization.

607. Municipal Government. Five credit hours. Autumn Quarter. Five meetings each week. Prerequisites, Political Science 401 and 402.

A comparative study of modern municipalities in the United States and the principal countries of Europe; their social significance; their governmental structure; their relation to the state; the experience with government by council, mayor, commission, and manager; methods of popular participation. Lectures, investigations, and reports on particular cities.

608. Municipal Functions. Three credit hours. Winter Quarter. Three meetings each week. Prerequisites, Political Science 401, 402, and 607.

A study of the activities of modern municipalities: the organization, methods employed, policies and problems in the fields of finance; health and sanitation; police and fire protection; education; city planning; housing; public utilities; charities and corrections; recreations.

705-706-707. Honors Course. Three to five credit hours. Autumn, Winter, Spring Quarters. Informal conferences, the intent being to allow full scope to the initiative of the student. Prerequisites, senior standing and forty hours of credit in the social sciences, including fifteen hours in political science, with the record of "A" in at least half of the Political Science courses and an average of "B" in the remainder. At least two Quarters required of candidates for the degree of Bachelor of Arts with Distinction in Political Science. All instructors.

A special topic is assigned to each student each Quarter, and results are tested by the requirement of theses and special examinations. Failure to receive a grade of "B" in this course is a disqualification for special honors.

PRINCIPLES AND PRACTICE OF EDUCATION

Office, 115 Education Building

PROFESSORS BODE, TWISS, BRIM, THAYER, AND PAHLOW, ASSISTANT PROFESSOR LANDSITTEL, MR. HULLFISH, MR. MADDOX, MR. SCHOLTZ, MR. ALBERTY, AND DEPARTMENT ASSISTANTS

Principles and Practice of Education 401 is a prerequisite for all other courses in the department. By special arrangement persons of maturity and experience may be admitted to other courses without this prerequisite. Additional prerequisites for the several courses are indicated below. These requirements will not be made retroactive in the case of students who began work in the department previous to the academic year 1922-1923.

GENERAL PRINCIPLES

401. Principles of Education. Five credit hours. One Quarter. Autumn, Winter, Spring. Three lectures and two quiz sections each week. Required in the College of Education. Prerequisite, five Quarters of university work. Mr. Bode, Mr. Maddox, Mr. Scholtz, Mr. Alberty, and assistants.

An inquiry into the meaning of education, the nature and function of ideals, and the nature of the thinking process in its bearing on educational procedure.

This course is not open to students who have credit for Principles of Education 301 or 302 or 402 or 403.

406. Contemporary Educational Practices. Three credit hours. Spring Quarter. Prerequisite, Principles of Education 401. Mr. Brim.

A survey of various educational practices and an attempt to appraise them in the light of constructive educational principles.

FOR ADVANCED UNDERGRADUATES AND GRADUATES

601. Moral Ideals in Education. Three credit hours. Autumn Quarter. Prerequisite, senior standing in the College of Education, or twenty-five Quarter hours in educational subjects, philosophy or psychology. Mr. Hullfish.

A consideration of types of moral ideals, of the relation of moral values to school subjects, and of the question of direct and systematic moral instruction in the schools.

This course is not open to students who have credit for Principles of Education 350.

605. Cultural and Vocational Ideals in Education. Four credit hours. Winter Quarter. Prerequisite, senior standing in the College of Education or twenty-five Quarter hours in educational subjects, philosophy or psychology. Mr. Maddox.

A study of cultural and vocational aims, with reference to their historic background and contemporary opinion, and in their significance for a democratic society.

This course is not open to students who have credit for Principles of Education 352.

619. Social Aims in Education. Three credit hours. Winter Quarter. Prerequisite, senior standing in the College of Education or twenty-five Quarter hours in educational subjects, philosophy or psychology. Psychology 621 and History of Education 403 are desirable but not required, as further prerequisite or concurrent courses. Mr. Maddox.

A study of typical theories as to the social purpose of education, with special emphasis upon their significance for moral and democratic ideals, and upon the function of the school as a means of social progress.

This course is not open to students who have credit for Principles of Education 450.

620. Conceptions of Mind in Educational Theory. Three credit hours. Autumn Quarter. Prerequisite, senior standing in the College of Education or twenty-five Quarter hours in educational subjects, philosophy or psychology. Mr. Bode, Mr. Maddox, Mr. Scholtz.

A study of the doctrines of mind that have exercised a determining influence upon educational theory and practice.

This course is not open to students who have credit for Principles of Education 354.

640. Modern Tendencies in Education. Three credit hours. Spring Quarter. Prerequisite, senior standing in the College of Education or twenty-five Quarter hours in educational subjects, philosophy or psychology. Mr. Bode, Mr. Maddox, Mr. Scholtz.

A discussion of current doctrines and controversies, in the light of their historic background and their philosophical implications.

This course is not open to students who have credit for Principles of Education 356.

643. The Doctrine of Interest and Apperception. Three credit hours. Winter Quarter. Prerequisite, senior standing in the College of Education or twenty-five Quarter hours in educational subjects, philosophy or psychology. Mr. Scholtz.

The role of interest and apperception in modern educational procedure. Reference will be made to theories of Herbart and the Herbartians in so far as they apply to these problems.

645. Social Education. Three credit hours. Spring Quarter. Wide readings, papers, lectures, and discussions. Prerequisite, senior standing in the College of Education or twenty-five Quarter hours in educational subjects, philosophy or psychology. Students electing this course may offer Sociology 401 as part of the twenty-five hours of prerequisite. Students who have had no sociology are urged to take Sociology 401 concurrently with this course. Mr. Lumley.

An examination of educational agencies and processes other than those of the school, which contribute to the enlightenment and socialization of the individual. An analysis of childhood's isolation, the methods of communication and control, the in-

fluence of the family, the playgrounds, the industrial organization, the church and the state.

651-652-653. Minor Problems. One to four credit hours. Autumn, Winter, Spring Quarters. Before registering for this course students must secure the permission of the instructor. Mr. Bode and others.

Investigation of minor problems in the field of principles and practice of education.

By permission of the Head of the Department and the Director of the Bureau of Educational Research, students enrolled in this course may obtain credit for research work done under the auspices of the Bureau staff.

668. The Project Method in Education. Three credit hours. Winter Quarter. Lectures and discussions. Prerequisites, senior standing in the College of Education or twenty-five Quarter hours in educational subjects, philosophy or psychology. Mr. Alberty.

An examination and evaluation of the project method in education upon the basis of its fundamental principles, historical development, and present use.

†680. The Place of the Schools in the Social Organization. Three credit hours. Lectures and discussions. Prerequisite, senior standing in the College of Education or twenty-five Quarter hours in educational subjects, philosophy or psychology.

The course will deal with the following topics: the social and educational philosophy of the superintendent of schools; the function of the superintendent as an educational leader—(a) with respect to the community, (b) with respect to the teaching personnel; the construction of an educational program for the community; social aims and ideals as embodied in unique systems of schools.

This course is not open to students who have credit for Principles of Education 380 or 381.

682. Theories of the Educative Process. Three credit hours. Spring Quarter. Lectures and conferences. Prerequisites, senior standing in the College of Education and Principles of Education 620, or twenty-five hours in educational subjects, philosophy or psychology, including Principles of Education 620 and Psychology 401. These requirements may be modified by special request, in the case of persons of maturity and experience. Mr. Hullfish.

A comparative study of contemporary writers in the field of education for the purpose of developing and formulating the differences in educational theory and practice that are involved in the divergent treatments of such topics as interest, duty, habit, ideals, transfer of training and thinking.

683. The Thinking Process in its Educational Bearings. Three credit hours. Winter Quarter. Lectures and conferences. Prerequisites, senior standing in the College of Education or twenty-five hours in educational subjects, philosophy or psychology, including a course in principles of education and a course in psychology. These requirements may

† Not given during the academic year, 1927-1928.

be modified by special request, in the case of persons of maturity and experience. Mr. Alberty.

A study of the thinking process, for the purpose of tracing its implications for educational theory and classroom practice.

684. The Place of Scientific Method in Education. Three credit hours. Winter Quarter. Prerequisites, senior standing in the College of Education and Principles of Education 640, or twenty-five hours in educational subjects, philosophy or psychology, including Principles of Education 640 and Psychology 401, and three Quarters of college science. These requirements may be modified by special request, in the case of persons of maturity and experience. Mr. Scholtz.

An inquiry into the precise nature and field of scientific method, together with a discussion of the important contributions of the method to educational practices and a consideration of the possible limitations of the application of science to education.

SECONDARY EDUCATION

410. Methods of High School Teaching. Five credit hours. One Quarter. Autumn and Spring. Required in Education-Science Nursing. Prerequisites, Principles of Education 401 and a course in educational psychology. This course must be taken concurrently with Principles of Education 440 by students doing practice teaching in English, history, foreign language, mathematics, science, and industrial arts education. This course may be elected independently in the Summer Quarter by teachers of experience. Mr. Twiss, Mr. Thayer, Mr. Pahlow, Mr. Hullfish, Mr. Maddox, Mr. Scholtz, Mr. Alberty.

A study of general and special methods; observation and criticism of classroom work in high school.

This course is not open to students who have credit for Principles of Education 312 or 313 or 411 or 412.

440. Practice Teaching in Secondary Schools. Five credit hours. One Quarter. Autumn and Spring. Required in the College of Education. Prerequisite, senior standing and registration in the College of Education, and Principles of Education 401. This course must be taken concurrently with Principles of Education 410 by students doing practice teaching in English, history, foreign language, mathematics, science and industrial arts education. Open only to students in the College of Education. Mr. Thayer, Mr. Pahlow, Mr. Twiss, Mr. Hullfish, Mr. Maddox, Mr. Scholtz, Mr. Alberty.

A study of general and special methods; observation and criticism of classroom work in high school. Practice in teaching, ten weeks.

NOTE: Students registering for this course should report to the office of the Department of Principles of Education immediately after their schedules have been approved, and fill out a practice teaching placement card.

NOTE: For Principles of Education 485, Principles and Methods of Teaching Commercial Subjects, see Vocational Education, page 228.

FOR ADVANCED UNDERGRADUATES AND GRADUATES

NOTE: Courses 700 to 760 inclusive will not be counted toward a graduate major or minor in the Department of Principles and Practice of Education.

606. Principles and Methods of Junior High School Teaching. Five credit hours. Winter Quarter. Prerequisites, Principles of Education 401 (or 301 and 302), a course in educational psychology, and five additional hours in educational subjects. Mr. Landsittel.

The reorganization movement in secondary education. Adaptation of curriculum and methods to the conditions of early adolescence, with special reference to diversity of interests and capacities. Preservation of essential community of experience. Supervised study. The problem-project method of approach.

This course is not open to students who have credit for Principles of Education 420 or 421 or 422 or 314 or 315 or 351 or 353.

610. Supervision of Teaching in Secondary Schools. Three credit hours. Autumn Quarter. Open to Seniors in the College of Education or to graduate students majoring or minoring in principles of education; practical teaching experience of at least two years is a further prerequisite. Persons of maturity and experience who have not the prerequisite may be admitted by permission of the instructor. Mr. Thayer.

The problems involving cooperation between supervisors and teachers. Approved practices in the supervision of classroom work and the evaluation of methods and results.

This course is not open to students who have credit for Principles of Education 357 or 358 or 611 or 612.

625. Problems of Curriculum Construction in Secondary Education. Three credit hours. Winter Quarter. Open to Seniors in the College of Education or to graduate students majoring or minoring in principles of education. Persons of maturity and experience who have not the prerequisite may be admitted by permission of the instructor. Mr. Thayer.

A critical survey of the tendencies which have determined the character and content of the secondary school curriculum and an evaluation of present procedures in curriculum construction.

This course is not open to students who have credit for Principles of Education 362 or 363.

651-652-653. Minor Problems. One to four credit hours. Autumn, Winter, Spring Quarters. Before registering for this course students must secure the permission of the instructor. Mr. Bode and others.

Investigation of minor problems in the field of principles and practice of education.

By permission of the Head of the Department and the Director of the Bureau of Educational Research, students enrolled in this course may obtain credit for research work done under the auspices of the Bureau staff.

660. Methods and Problems of the Physical Sciences. Four credit hours. Autumn Quarter. Prerequisites, Chemistry 401-402 or 411-412 and Physics 401-402 or 403-404. Mr. Twiss.

Students in the College of Education who are majoring in any of the non-biological sciences must secure credit for four hours of work in Principles of Education 660, 661,

364, 365, 382, 383. These courses are elective for other students in the College of Education and for students in the other colleges.

The purposes of this course are: (1) to trace the ideas which have dominated creative thinking in the physical sciences; (2) to discuss the factors which have given direction and impetus to the development of these sciences; (3) to study the subjects and personalities that have had most to do with their development; (4) to give an understanding of the methods by which the outstanding scientific work has been done and the methods by which it must be stimulated in others; (5) to discuss the scope, opportunities, important problems and centers of development in the physical sciences; (6) to interpret the influence of science in education and in civilization; (7) to give a comprehensive picture of the nature, influence, and development of the scientific mind.

This course is not open to students who have credit for Principles of Education 364 or 365.

661. Methods and Problems of the Physical Sciences. Four credit hours. Spring Quarter. Prerequisites, Chemistry 401-402 or 411-412 and Physics 401-402 or 403-404. Mr. Twiss.

Continuation of Principles of Education 660.

This course is not open to students who have credit for Principles of Education 382 or 383.

663. The History Course of Study in Secondary Schools. Five credit hours. Winter Quarter. Open to Juniors and Seniors majoring or minoring in history and, with the consent of the instructor, to other properly-qualified students. Prerequisite for those who intend to do practice-teaching in history, Principles of Education 440. Mr. Pahlow.

The selection and organization for teaching purposes of materials from ancient, medieval, modern, and world history; events, movements, and personages to emphasize; classroom and library equipment appropriate to each field—textbooks and books for reference and collateral reading; maps, charts, and other illustrative material.

This course is not open to students who have credit for Principles of Education 384 or 385.

665. Civic Education in Secondary Schools. Three credit hours. Winter Quarter. Prerequisite, fifteen hours above freshman standing of social science other than history. Mr. Pahlow.

The selection and organization for teaching purposes of materials from the various social studies for secondary school courses in community civics, problems of democracy, and the like; methods of procedure, recent experimental courses of study, classroom and library equipment.

700. The Teaching of American History. Three credit hours. Autumn Quarter. Three meetings each week. This course must be taken by all who expect to be recommended for teaching positions in the subject. Prerequisites, at least junior standing and four Quarters in history; must be preceded or accompanied by a fifth course. Of these, two should be in medieval and modern European history or in English history, and the others in American history. Mr. Knight.

Lectures, readings, and quiz upon methods of teaching history in the secondary schools, schemes of courses, equipment, examination of textbooks; followed by practice

work in the preparation of lessons for teaching, and the conduct of recitations in American history.

This course is not open to students who have credit for American History 610.

705. The Teaching of Biology. Three credit hours. Spring Quarter. Three recitations each week. Prerequisites, Botany 401-402, Zoology 401-402, and at least four additional Quarters of some biological subject. Mr. Transeau (Botany), Mr. Barrows (Zoology).

This course is given primarily for the students in the College of Education who expect to teach high school biology. The work will include lectures and demonstrations with discussion of the best methods of presenting botany, zoology, and biology to high school students.

This course is not open to students who have credit for Botany 515 or Zoology 515.

710. The Teaching of Chemistry. Three credit hours. Spring Quarter. Three conferences each week. Prerequisites, acceptable courses in general, analytical, and organic chemistry. Mr. McPherson.

This course consists of reports upon assigned readings in educational journals; of discussions concerning the proper place of chemistry in school curricula, and that of the methods of conducting lecture and laboratory work. Such subjects as the proper planning of laboratory, the purchase of materials, and similar problems confronting the teacher of chemistry are also discussed.

This course is not open to students who have credit for Chemistry 781.

715. The Teaching of English. Three credit hours. Spring Quarter. Exclusively for Seniors and graduate students. Prerequisite, Public Speaking 459. Mr. Denney.

This course is not open to students who have credit for English 681.

†716. The Teaching and Supervision of Journalism in Secondary Schools. Three credit hours. Four recitations and four hours of laboratory work on the Lantern each week. Not open to Freshmen. Mr. Getzloe.

This course is intended for persons who have been teaching or who expect to teach journalism in secondary schools, or to act as faculty advisers for school newspapers, magazines, or annuals. It includes a general survey of the editorial, business, and mechanical activities of newspaper and magazine publication, with special emphasis on those which are of greatest value and interest to students.

This course is open only to students registered in the College of Education and graduate students, except by special permission.

†725. The Teaching of German. Three credit hours. Three hours lecture and quiz each week. Prerequisites, six Quarters of college German, and consent of the instructor. Mr. Evans.

A critical study of the methods of teaching modern foreign languages. Lectures, reports, and practice teaching.

This course is not open to students who have credit for German 665.

† Not given during the academic year, 1927-1928.

730. Methods of Teaching Latin. Three credit hours. Autumn Quarter. Three lectures each week. Prerequisite, six Quarters of college Latin. Mr. Hodgman.

Lectures and assigned readings on methods of teaching Latin in the secondary schools. Place and value of Latin in education; bibliography; illustrative exercises in the Latin authors used in high schools.

This course is not open to students who have credit for Latin 617 or 731.

†731. The Teaching of Latin. Three credit hours. Prerequisite, six Quarters of college Latin, or consent of the instructor. Mr. Ogle.

A general course based primarily upon the authors read in the secondary schools. Selections from each will be studied in detail to afford practice in the fundamentals of grammar, in the art of expression, and in the arts of translation and interpretation. Topics directly concerned with the work of the classroom will be discussed, such as the ends of the study, the methods best adapted to attain them, the place and purpose of prose composition, the use of translation, illustrative material.

This course is not open to students who have credit for Principles of Education 730 or Latin 617.

735. The Teaching of Mathematics. Three credit hours. Autumn Quarter. Three recitations each week. Lectures and discussions. Required of students in the College of Education who are majoring in mathematics. Prerequisite, Mathematics 443. Mr. Arnold.

The educational value of the study of mathematics; the content matter of the various courses in secondary and early collegiate mathematics; modes and methods; recent and contemporary studies of the teaching of mathematics.

This course is not open to students who have credit for Mathematics 681.

740. The Teaching of French. Three credit hours. Winter Quarter. Three lectures each week. Prerequisites, French 410, 627, and 628. Required of all students desiring the department recommendation as a teacher of French. Mr. Rockwood.

Special problems and difficulties in the teaching of French. Teacher's equipment. Classroom aids. Lectures, discussions, practice in conducting recitations.

This course is not open to students who have credit for French 622.

NOTE: Students registering for this course must not register for any course at ten o'clock, as this period must be kept open for classroom visitation.

745. The Teaching of Spanish. Three credit hours. Spring Quarter. Three recitations each week. Prerequisites, Spanish 617 and 620. Mr. Hendrix, Mr. Russell.

Methodology and bibliography.

This course is not open to students who have credit for Spanish 618.

750. The Teaching of Mechanical Drawing. Three credit hours.

† Not given during the academic year, 1927-1928.

Autumn Quarter. One lecture and two three-hour laboratory periods each week. Mr. French.

This course is not open to students who have credit for Engineering Drawing 431 or 531.

751. The Teaching of Mechanical Drawing. Three credit hours. Winter Quarter. One lecture and two three-hour laboratory periods each week. Prerequisite, Principles of Education 750. Mr. French.

This course is not open to students who have credit for Engineering Drawing 432 or 532.

755. The Teaching of Physics. Three credit hours. Spring Quarter. Prerequisite, two Quarters' work in college physics. Mr. Cole.

This course is not open to students who have credit for Physics 420.

760. Spoken and Written English: Teachers' Course. Three credit hours. Spring Quarter. Open to teachers or prospective teachers only. Mr. Wiley.

Classroom practice designed to assist teachers of composition in secondary schools. Definite suggestions in the following: how to prepare students for debating and speaking contests; the nature of speech training in secondary schools; composition; investigation of subject, recording, organizing, outlining, and writing up the material; delivering of an address, including drill in pronunciation and articulation.

This course is not open to students who have credit for Public Speaking 680.

ELEMENTARY AND RURAL EDUCATION

430. Principles and Methods of Elementary School Teaching. Five credit hours. Spring Quarter. Curriculum for Elementary Teachers, fourth year. Prerequisite, Principles of Education 401. This course must be taken concurrently with Principles of Education 441. Mr. Landsittel.

This course is designed to accompany practice teaching, and on the basis of direct classroom contacts thus furnished, to extend and integrate the benefits of professional courses previously taken. Problems of management and method will be dealt with in a manner calculated to develop in the student capacity for intelligent professional reaction to the teaching situation.

This course is not open to students who have credit for Principles of Education 303.

441. Practice Teaching in Elementary Schools. Ten credit hours. Spring Quarter. Curriculum for Elementary Teachers, fourth year. Prerequisite, senior standing and registration in the College of Education, and Principles of Education 401. This course is open only to students in the College of Education. This course must be taken concurrently with Principles of Education 430, except by special permission. Mr. Landsittel.

Students will be expected to devote their full time, under the supervision of the University instructor in charge, to this course and Principles of Education 430. Ob-

ervation, participation in classroom management, class teaching, and individual and group conferences will be embraced in the course, these activities absorbing approximately two-thirds of the student's full time for the Quarter.

***492. The Teaching of Arithmetic and Science in the Elementary Schools.** Three credit hours. Spring Quarter. Required in the curriculum for Elementary Teachers, third year. Prerequisite, Principles of Education 401. Mr. Landsittel.

Arithmetic and science topics in the elementary schools. Functions as revealed in life activities. How essential concepts are formed. Evaluation of subject-matter and organization of lessons. Motivation and training in thinking through projects and problems. Assignment, presentation, drill, testing, standards of pupil attainment.

This course is not open to students who have credit for Principles of Education 304.

493. The Teaching of English Studies in the Elementary Schools. Three credit hours. Autumn Quarter. Required in the curriculum for Elementary Teachers, third year. Prerequisite, Principles of Education 401. Mr. Brim.

Reading, English classics, spelling, composition, and grammar. Functions and methods, with attention to silent reading, dramatization, and learning through use. Planning and presentation of lessons. Formal and informal testing, and standards.

This course is not open to students who have credit for Principles of Education 305.

494. The Teaching of Social Studies in the Elementary Schools. Three credit hours. Spring Quarter. Required in the curriculum for Elementary Teachers, third year. Prerequisite, Principles of Education 401. Mr. Landsittel.

History, civics, and the social side of geography. Objectives. Subject-matter interrelations. Critical evaluations of methods, including the problem-project method. Formal and informal testing.

This course is not open to students who have credit for Principles of Education 306.

FOR ADVANCED UNDERGRADUATES AND GRADUATES

612. Survey of Scientific Investigations in Elementary School Subjects. Three credit hours. Spring Quarter. Open to Seniors in the College of Education or graduate students majoring in principles of education. Other persons of maturity and experience may elect the course by permission of the instructor. Mr. Brim.

The contributions of scientific research to the teaching of the elementary school subjects. Methods and results will be examined and the implications for schoolroom procedure considered.

This course is not open to students who have credit for Principles of Education 374.

613. Supervision of Elementary School Teaching. Three credit hours. Spring Quarter. Open to Seniors in the College of Education or

* Not given in 1927-1928.

graduate students majoring in principles of education. Other persons of maturity and experience may elect the course by permission of the instructor. Mr. Brim.

The distinctive function of supervision, the problems involved, the requirements for efficiency in supervision, the methods of diagnosis and evaluation of teaching and learning procedure, ways and means of improving instruction, maintaining teacher morale, and stimulating cooperative work.

This course is not open to students who have credit for Principles of Education 360 or 361.

614. Curriculum Construction in Elementary Education. Three credit hours. Autumn Quarter. Open to Seniors in the College of Education or graduate students majoring in principles of education. Other persons of maturity and experience may elect the course by permission of the instructor. Mr. Brim.

A critical study of present curriculum materials in relation to school objectives and pupil needs. The former procedure and present tendency in curriculum construction will be evaluated. The most effective type of curriculum, and function of supervisor, teacher, and pupil in its construction will be considered.

615. Experimental Elementary Schools. Three credit hours. Autumn Quarter. Open to Seniors in the College of Education or graduate students majoring in principles of education. Other persons of maturity and experience may elect the course by permission of the instructor. Mr. Brim.

A study of the attempt to demonstrate and test the different educational theories in elementary schools throughout the country. These schools will be studied and evaluated in relation to principles.

This course is not open to students who have credit for Principles of Education 370.

616. Elementary Teacher Training. Four credit hours. Winter Quarter. Open to Seniors in the College of Education or graduate students majoring in principles of education. Other persons of maturity and experience may elect the course by permission of the instructor. Mr. Landsittel.

A study of the function, content, and organization of courses of study designed to contribute toward the training of teachers for elementary schools. Standards of organization and training, means of capitalizing subject-matter courses, the inter-relations of professional courses, and direction of observation and practice teaching will receive special consideration.

617. Supervision of Rural Elementary Schools. Three credit hours. Autumn Quarter. Open to Seniors in the College of Education or graduate students majoring in principles of education. Other persons of maturity and experience may elect the course by permission of the instructor. Mr. Brim.

Specific attention will be given to the problems of the supervisor of rural schools. Standards for judging the several activities to be supervised, the analysis and evalua-

tion of the usual procedure, ways and means of improving the teacher's work through conferences, demonstration teaching, directed study of classroom problems, etc., will be discussed.

618. Rural Teacher Training. Five credit hours. Spring Quarter. Open to Seniors in the College of Education or graduate students majoring in the principles of education. Other persons of maturity and experience may elect the course by permission of the instructor. Mr. Brim.

A course given specifically for those who are responsible for training rural teachers in normal colleges and county normal schools. Problems in teacher training confronted by members of the class will be carefully considered. Desirable curriculum content, organization of work, and provision for observation and practice teaching will be stressed.

This course is not open to students who have credit for Principles of Education 372.

651-652-653. Minor Problems. One to four credit hours. Autumn, Winter, Spring Quarters. Before registering for this course students must secure the permission of the instructor. Mr. Bode and others.

Investigation of minor problems in the field of principles and practice of education.

By permission of the Head of the Department and the Director of the Bureau of Educational Research, students enrolled in this course may obtain credit for research work done under the auspices of the Bureau staff.

670. The Rural School Curriculum. Five credit hours. Spring Quarter. Mr. Brim.

The fundamental nature of the curriculum problem. The present approved standards for the elementary curriculum. Desirable differentiation in curricula for urban and rural elementary schools. The course will seek to offer concrete and practical help in reorganizing the curriculum in rural elementary schools in terms of rural school conditions and rural children's experience and needs.

This course is not open to students who have credit for Principles of Education 308 or 377 or 513.

FOR GRADUATES

An undergraduate student shall not be permitted to take any course in the "800" group except by permission of the Graduate Council.

802-803-804. Special Problems in Educational Theory.

811-812-*813. Special Problems in Secondary Education.

814-*815-816. Special Educational Problems in the Social Studies in the Secondary Schools.

***817. Special Educational Problems in the English Studies in the Secondary Schools.**

†819. The Junior College Curriculum.

* Not given in 1927-1928.

† Not given during the academic year, 1927-1928.

821-822. Special Educational Problems in the Physical Sciences in the Secondary Schools.

825-826-827. Special Problems in Elementary Education.

835. The Teaching and Supervision of History in the Secondary Schools.

851-852-853. Major Research.

For description of graduate courses in this department see the Bulletin of the Graduate School.

PSYCHOLOGY

Office, 325 Education Building

PROFESSORS ARPS, WEISS, BURTT, GODDARD, MAXFIELD, PRESSEY, AND TOOPS, ASSISTANT PROFESSORS ROGERS, WILLIAMS, WILSON, AND RENSHAW, MRS. PRESSEY, MR. HENDERSON, MR. REXROAD, MRS. KOCH, MR. SOUTH, MR. THOMPSON, MR. GLEASON, MR. PETERSON, MR. NASH, MISS FERGUSON, MRS. NELSON, AND DEPARTMENT ASSISTANTS

The courses offered in psychology fall into five general groups. The following approximate sequences are suggested for the guidance of students desiring a consistent program giving preparation in one of these fields. It is strongly urged, however, that students contemplating such work consult with the department as early as possible with reference to the arrangement of courses. This is particularly the case with graduate students. Thus in planning for a Doctor's degree a reading knowledge of French and German should be acquired during the undergraduate period.

I. Normal Psychology: 401-402, 601-602-603, 608, 621, 623, 629, 630, 645, 650.

II. Educational Psychology—preparation for psychological work in the schools: 401 and 407 (both required in the College of Education), 608, 610, 662, 613, 614, 615, 616, 611, 628, 651 or 652, 650.

III. Abnormal and Clinical Psychology: 401-402 or 407, 605, 606, 609, 611, 616, 617, 618, 619, 620, 621, 641, 642, 650, 801, 808.

In this division will be found courses serving the following purposes:

(1) Extending the student's knowledge of another field of psychology.
(2) Acquainting him with an understanding of the possible derangements or disturbances of mental functions, and the means for correcting in himself or in others.

(3) Fitting the student for service in one of the rapidly developing fields of mental hygiene as psycho-clinician, teacher, or director of clinics.

(4) A service clinic for the students of the University. Women may consult Miss Emily Leatherman; men, Mr. M. A. Durea. Room 303, Education Building.

IV. Applied Psychology: 401-402, 635, 636, 608, 639, 637, 638, 634, 650.

V. Comparative Psychology: 401-402, 655, 656, 657, 658, 650.

401. Elementary Psychology. Five credit hours. One Quarter. Autumn, Winter, Spring. Five lecture hours each week. Lectures and recitations. All instructors.

An introductory course and fundamental to all subsequent courses in the department.

402. Elementary Psychology. Five credit hours. One Quarter. Autumn, Winter, Spring. Five lecture hours each week. Lectures and recitations. All instructors.

A continuation of Psychology 401.

406. Intermediate General Psychology. Three credit hours. Spring Quarter. Three lecture hours each week. Prerequisite, Psychology 402. Mr. Wilson.

A continuation of Psychology 402, with special emphasis on the fundamental principles and experiments in the general field of psychology.

407. Educational Psychology. Five credit hours. One Quarter. Autumn, Winter, Spring. Five lecture hours each week. Lectures, recitations, and reports. Prerequisite, Psychology 401. All instructors.

The course begins with a brief study of the innate capacities and interests of children and individual differences in these capacities. The major part of the course is devoted to a study of the general laws and conditions of learning and the results of investigations regarding the progress of learning in various school subjects. Throughout the course experimental data and test results are stressed and practical problems emphasized.

408. Mental Hygiene. Two credit hours. Winter Quarter. Two class meetings each week. Prerequisite, Psychology 407 or 402. Mrs. Pressey.

A general survey of the principles of mental hygiene. A study of mental efficiency, social and emotional adjustment, and personality in light of the principles of mental hygiene.

409. Introduction to Applied Psychology. Three credit hours. Spring Quarter. Three lecture hours each week. Prerequisite, Psychology 402. Mr. Burt.

A systematic discussion of problems, methods, and typical results of psychology in the practical fields of medicine, law, education and business.

411. Psychology of Effective Study. Three credit hours. Winter Quarter. Lectures, discussions, and supervised study. Open to students on probation or to other students by permission of the Secretary of the College or of the instructor. Mrs. Pressey.

An applied course on psychological laws of economical learning. The laws will be not only taught, but demonstrated and applied under the supervision of the instructor. Students who feel themselves handicapped by poor habits of study are urged to enroll in this course.

For further details see the Secretary of the College.

FOR ADVANCED UNDERGRADUATES AND GRADUATES

601. Experimental Psychology. Three credit hours. Autumn Quarter. One lecture and two laboratory periods each week. Prerequisite, Psychology 402. Mr. Weiss, Mr. Renshaw.

A systematic training course in the psychological method.

602. Experimental Psychology. Three credit hours. Winter Quarter. One lecture and two laboratory periods each week. Prerequisite, Psychology 601. Mr. Weiss, Mr. Renshaw.

A continuation of Psychology 601.

603. Experimental Psychology. Three credit hours. Spring Quarter. One lecture and two laboratory periods each week. Prerequisite, Psychology 602. Mr. Weiss, Mr. Renshaw.

A continuation of Psychology 602.

605. Physiological Psychology. Three credit hours. Autumn Quarter. Three lectures each week. Prerequisite, Psychology 401-402. Mr. Goddard.

The aim of this course is to give a consistent picture of the physical basis of mind. It uses the important facts of the anatomy and physiology of the central and autonomic nervous systems and the more generally accepted theories of nerve functions and their correlations with mental processes. It is adapted to the needs of medical students and those taking courses in abnormal psychology and the mentally deficient child.

606. Advanced Physiological Psychology. Three credit hours. Winter Quarter. Three lectures each week. Prerequisite, Psychology 605 or permission of the instructor. Mr. Goddard.

This course will deal with the larger problems of the dependence of mental phenomena upon physiological processes such as: the emotions and the sympathetic system; temperament and the endocrines; consciousness and the circulation; nerve activity without consciousness; effect of unusual physiological conditions (e. g., produced by fatigue, alcohol, syphilis, or other toxins) upon various mental processes.

607. Genetic Psychology. Five credit hours. Spring Quarter. Five lecture hours each week. Lectures, recitations, and reports. Prerequisite, Psychology 401-402 or 407. Mr. Williams.

This course is designed to present the facts of mental development and their significance. Topics considered are: individual development, particularly with reference to the development of the nervous system; inheritance of mental traits; innate tendencies, their characteristics, description, and modification; play; mental states, their physiological basis and development with growth and training; moral and religious development; physical development; methods of child study; exceptional children (observation of atypical children in city and state institutions).

608. Educational Statistics: Elementary. Three credit hours. Autumn Quarter. Two lectures and one two-hour laboratory period each week. Not open to Freshmen and Sophomores. Mr. Toops.

A basic statistical course for students intending to conduct major or minor research. Frequency distributions, methods of measuring central tendencies and variability; construction of graphs and charts; interpretation of results in terms of probability; simple treatment of correlation. Extended practice in the use of calculating machines and computational devices.

This course is not open to students who have credit for School Administration 613 or 643.

609. The Exceptional Child. Three credit hours. Spring Quarter. Three lecture hours each week. Lectures, reports, clinics, and visits to public institutions. Prerequisite, fifteen hours of psychology or ten hours of psychology and five hours of professional educational subjects or sociology. Mr. Maxfield.

Individual differences among children with respect to mental, physical, and social traits. The social and pedagogical significance of talent and defect. Consideration of gifted children, special ability, special disability, delinquency, speech defect, and conduct disorder. Minor consideration of mental deficiency. Emphasis will be placed upon the psychology of the exceptional child as a foundation for educational classification and treatment.

610. Adolescence. Three credit hours. Spring Quarter. Three lectures each week. Prerequisite, Psychology 407 or 402. Mrs. Pressey.

A study of the outstanding characteristics of the adolescent boy and girl, the educational and social problems arising at this period, and means for dealing with these problems.

611. The Mentally Deficient Child. Three credit hours. Autumn Quarter. Three lecture hours each week. Lectures, reports, clinics, and visits to public institutions. Prerequisite, fifteen hours of psychology or ten hours of psychology and five hours of professional educational subjects or sociology. Mr. Maxfield.

The varieties and grades of mental deficiency, including the backward child of the schools and the distinctly feeble-minded. Consideration of mental deficiency and defect for purposes of educational treatment and social disposition. The psychology of feeble-mindedness; types, degrees, causes, and consequences. Minor consideration of the special pedagogy of backward children.

612. Educational Statistics: Intermediate. Three credit hours. Winter Quarter. Two lectures and one two-hour laboratory period each week. Prerequisite, Psychology 608 or School Administration 613 or 643 or equivalent. Mr. Toops.

Fuller treatment of correlation; regression coefficients and equations; partial and multiple correlation; uses of normal probability curve; reliability and validity of test data; comparable measures.

This course is not open to students who have credit for School Administration 644.

613. Mental and Educational Tests. Three credit hours. Autumn Quarter. Three lecture hours each week. Lectures, readings, classroom demonstrations, and special reports. Prerequisite, Psychology 402 or 407. Mr. Pressey.

A brief course covering the use of tests of both ability and school work. The course will begin with a discussion of tests in arithmetic, reading and history, and other school subjects, will then take up tests of intelligence and will conclude with a general discussion of the handling of test scores and of the use to be made of these scores in dealing with practical problems.

***614. Problems of Test Work.** Three credit hours. One Quarter. Three lectures each week. Lectures, readings in educational periodicals, discussion. Prerequisite, Psychology 613 or its equivalent, or (by permission of the instructor) extended experience in the use of tests. Mr. Pressey.

Reliability and validity of tests. Interpretation of scores. Statement of results; graphing. Criteria for selecting tests; organization of test work; records; application of test results in dealing with educational problems. The work will be illustrated throughout by use of standard mental and educational tests. Students having data of their own are urged to make use of this material in working out application of the principles discussed.

615. Laboratory in Tests and Educational Diagnosis. Three credit hours. Spring Quarter. Six laboratory hours each week. Prerequisite, Psychology 613 or permission of the instructor. Mrs. Pressey.

Practice in the giving and scoring of tests and in the use of tests in dealing with educational problems. Special attention will be given to use of test materials in the diagnosis of special disabilities and difficulties in school work.

616. Individual Mental Tests. Two credit hours. One Quarter. Autumn and Winter. Two laboratory periods each week. Lectures, reports, laboratory, demonstrations, and individual testing. Prerequisite, fifteen hours of psychology or ten hours of psychology and five hours of professional educational subjects or sociology. Mr. Goddard, Mr. Maxfield, and assistants.

Practice in the technique of the Binet-Simon scale for measuring intelligence. Brief historical and descriptive treatment of the Binet scale followed by intensive training in the practical Binet testing of school children.

617. Elementary Psychological Clinic. Two credit hours. One Quarter. Winter and Spring. Two laboratory periods each week. Lectures, reports, demonstrations, laboratory and individual testing. Prerequisite or concurrent, Psychology 616. Mr. Goddard, Mr. Maxfield, and assistants.

Advanced study and application of the Binet-Simon scale for measuring intelligence. Psychology of Binet tests with study of the statistical principles involved in the construction of the scale. Descriptive study of the various modifications of the Binet-Simon scale. Intensive laboratory training in advanced Binet testing, with special emphasis on the diagnostic use of the test and qualitative interpretation of results.

618. Clinical Mental Tests. Two credit hours. One Quarter. Autumn and Spring. Two laboratory periods each week. Lectures, laboratory, and individual testing. Prerequisite, fifteen hours of psychology. Mr. Maxfield and assistants.

Descriptive and practical laboratory study of standardized diagnostic mental tests. Intensive laboratory training in the application of mental tests for individual examination, with special reference to tests of proved diagnostic value.

* Not given in 1927-1928.

619. Advanced Psychological Clinic. Two or four credit hours. One Quarter. Autumn, Winter, Spring. Two laboratory periods each week. Lectures, reports, laboratory, and individual case studies. Prerequisites, Psychology 617 and 618, or permission of the instructor. May be taken for one or two Quarters with a maximum credit of four hours. Mr. Goddard, Mr. Maxfield, and assistants.

Theory and practice of mental diagnosis. Descriptive and practical study of the clinical syllabus and case-taking, including family history, personal history, school history, social history, etc. Combination mental diagnosis based on the application and interpretation of various mental tests for general intelligence, special ability, disability, etc. Training in the preparation of clinical reports.

NOTE: A student may profitably receive the special training which this course gives for a second Quarter. Repetition does not involve repetition of content but additional practice in clinical diagnosis.

620. Practicum in Mental Diagnosis. Two credit hours. One Quarter. Autumn, Winter, Spring. Assignments equivalent to two laboratory periods each week. Prerequisite, Psychology 619 or permission of the instructor (students are advised to consult instructor before registering). May be taken for one or two Quarters with a maximum credit of four hours. Mr. Goddard, Mr. Maxfield, and assistants.

Applied clinical diagnosis. Students will engage in actual diagnostic service, under the supervision of the instructor. Cases will be studied in the laboratory and in the nearby public schools and institutions. Special training in the diagnosis of borderline, psychopathic, and doubtful cases. Advanced training in the preparation of clinical reports.

NOTE: A student may profitably receive the special training which this course gives for a second Quarter. Repetition does not involve repetition of content but additional practice in clinical diagnosis.

621. Social Psychology. Three credit hours. Winter Quarter. Three lecture hours each week. Prerequisite, Psychology 401-402 or 407. Mr. Arps.

The nature and variety of innate tendencies; the relation of these tendencies to acquired behavior and social control; the development of personality.

622. The Psychology of the Delinquent Child. Three credit hours. Spring Quarter. Three lecture hours each week. Lectures, reports, and visits to the Bureau of Juvenile Research. Prerequisite, fifteen hours of psychology or ten hours of psychology and five hours of professional educational subjects or sociology. Mr. Goddard.

The relation of mental deficiency to social maladjustment. Treatment of problems of mental abnormality arising in clinical work, in juvenile courts, institutions for delinquents, and in the work of probation officers, attendance supervisors, visiting teachers, and social workers.

***623. Folk Psychology.** Three credit hours. Autumn Quarter. Three lectures each week. Prerequisite, Psychology 401-402.

A consideration of the psychological factors involved in the various forms of group behavior.

* Not given in 1927-1928.

***624. Psychology of Vision.** Five credit hours. Spring Quarter. Three lectures each week. Given biennially. Prerequisites, Psychology 602, and Physics 402 or its equivalent. Qualified Juniors and Seniors in Electrical Engineering and Architecture may be admitted by permission of the instructor. Mr. Williams.

Production, measurement, and control of photic stimuli and measurements of the variations in their effectiveness as determined by physical and physiological factors. The work will consist in part of lecture-demonstrations and experiments, and in part of a critical study of the reports of original authors. Special attention will be given to the facts and hypotheses of color-vision and to visual problems in industry.

626. Problems in Learning and Thinking. Three credit hours. Winter Quarter. Three lecture and discussion hours each week. Prerequisite, Psychology 402 or its equivalent. Mr. Renshaw.

The development of the principles which underlie the acquired modifications of human behavior, from associationism to the present time.

628. The Learning Process. Three credit hours. Spring Quarter. Three lectures each week. Lectures, readings in monographs and journals, discussions. Prerequisite, Psychology 407. Mr. Pressey.

An advanced course in educational psychology, dealing with certain especially important problems in the field, such as the control of the learning process, memory and forgetting, transfer of training, fatigue, with emphasis upon the more elaborate types of learning such as are seen in school work. Especial attention will be paid to recent experimentation and theories concerning the learning process.

629. Advanced Psychology. Five credit hours. Autumn Quarter. Five lectures each week. Prerequisite, Psychology 401-402. Miss Rogers.

The purpose of this course is to give a larger background to the advanced student of psychology, with respect to the development of psychology as a science, emphasizing the relations of psychology to other disciplines, especially the sciences, and with respect to the evolutions of some of its fundamental concepts, as consciousness and behaviorism.

630. Psychology of Feeling and Emotion. Five credit hours. Winter Quarter. Five lectures each week. Prerequisite, Psychology 629. Miss Rogers.

A study of the various theories of feeling and emotion and the fundamental relations of emotion to instincts. The relations between these subjects and social behavior will be emphasized.

631. Theory of Intelligence. Three credit hours. Winter Quarter. Three lecture hours each week. Prerequisite, fifteen hours of psychology or ten hours of psychology and five hours of professional educational subjects. Open only to Seniors and graduate students. Mr. Maxfield.

Nature of intelligence, current and historical concepts. Psychology of intelligence; physical and physiological correlates. Distribution and growth of intelligence. Critical study of the "Intelligence Quotient." Mental age, mental level, mental type, mental function.

* Not given in 1927-1928.

634. Criminal and Legal Psychology. Five credit hours. Winter Quarter. Five lectures each week. Prerequisite, Psychology 401-402. Mr. Burt.

Psychological factors in the determination of reliability of testimony; the technique of detecting crime and falsehood; responsibility; the relation of crime to mental defect; the prevention of crime through environmental factors and heredity.

635. Psychology of Advertising. Three credit hours. One Quarter. Autumn and Spring. Three lectures each week. Prerequisite, Psychology 401-402. Mr. Burt.

The psychological principles involved in effective advertising, notably attention, memory and action, with the contributory factors of association, feeling, instinct, suggestion, and reasoning.

636. Advertising Laboratory. Three credit hours. Winter Quarter. Six laboratory hours each week. Prerequisite, Psychology 635. Mr. Burt.

General and special problems illustrating the application of laboratory methods and the treatment and use of experimental data in the field of advertising.

637. Industrial Psychology. Three credit hours. Autumn Quarter. Three lectures each week. Prerequisite, Psychology 401-402. Mr. Burt.

The application of psychology to problems of industrial learning, adjustment of technical to mental factors, monotony, fatigue, and environmental conditions.

***638. Industrial and Vocational Psychology Laboratory.** Three credit hours. Spring Quarter. Two three-hour laboratory periods each week. Prerequisite, permission of the instructor. Mr. Burt.

Laboratory work in the application of psychology to industrial and vocational problems, with especial emphasis on the development of mental tests for hiring employees. Practice in the devising and standardizing of occupational tests; obtaining and evaluating production ratings; correlation of ratings and tests; interpretation of results from the standpoint of vocational selection or guidance. A portion of the work of the course is frequently done in local business and industrial plants.

639. Psychology and Personnel. Three credit hours. Winter Quarter. Three lectures each week. Prerequisite, Psychology 401-402. Mr. Burt.

The application of psychology to problems of personnel. Selection and placement of employees by tests of intelligence and special ability. Trade tests, job analysis, and rating scales.

This course is not open to students who have taken Psychology 637 prior to 1923-1924.

640. Educational and Vocational Guidance. Three credit hours. Winter Quarter. Prerequisite, Psychology 407. Mr. Toops.

A course dealing with the technique of evaluating psychological and related factors as a basis for making educational and vocational recommendations to individuals. The

* Not given in 1927-1928.

place of vocational and educational tests, previous record, and personality traits in determination of choice of occupation or course of study.

This course is not open to students who have credit for Psychology 417.

641. Abnormal Psychology. Five credit hours. Winter Quarter. Five lectures each week. Lectures, recitations, and clinics. Prerequisite, Psychology 401-402. Mr. Goddard.

The abnormal mental phenomena—viz., disorders of perception, association, memory, affection, judgment, action, volition, and personality, with especial emphasis on their relation to the respective normal phenomena. The grouping of these disorders into the syndromes exhibited in the main types of insanity.

642. Psychopathology. Three credit hours. Spring Quarter. Three lectures each week. Lectures, recitations, and reports. Prerequisite, Psychology 641. Mr. Goddard.

This course will deal with the unusual (so-called pathological) manifestations of mind. Beginning with a consideration of subconscious phenomena—sleep, dreams, hypnosis, automatic writing, etc., there will be discussed: phobias, suggestion, the psychological aspects of hysteria, and multiple personality, psychasthenia, neurasthenia, and other disorders of personality.

644. Human Motives and Incentives. Three credit hours. Spring Quarter. Three hours each week. Lectures, recitations, and assigned readings. Prerequisite, Psychology 401-402 or 407. Mr. Toops.

The psychological bases of initiation and improvement of work. The role of instinct, habit, custom and tradition, rationalization and psychopathy in motivation. The incentive values of self-ratings, competition, punishment, and such rewards as money, bonuses, participation and promotion, in relation to the capacities of individuals.

645. History of Psychology. Five credit hours. Autumn Quarter. Five lectures each week. Prerequisites, Psychology 629 and 630 or permission of instructor. Mr. Williams.

The course aims to view modern psychological problems in the light of their historical antecedents. The development of various theories such as those of sensation, attention, space perception, and emotion will be traced from earliest times to the present. As far as possible assignments will involve reference to original sources.

646. Principles of Human Behavior. Three credit hours. Spring Quarter. Three lectures each week. Prerequisite, sixteen hours in psychology. Mr. Weiss.

A study of the development of theories of human behavior and a consideration of the simplest assumptions necessary and sufficient to explain the facts of human behavior as dependent on social and biological conditions.

†647. Theoretical Psychology. Three credit hours. Three lectures each week. Prerequisite, sixteen hours in psychology. Mr. Weiss.

Lectures and assigned readings bearing on the evolution of psychological theory in its relation to the physical and the social sciences.

†648. **Psychology of Language.** Three credit hours. Three lectures each week. Prerequisite, Psychology 401-402.

The nature of the speech reaction, the development of speech in the child, the types of linguistic categories, and the psychological factors in linguistic change.

This course is not open to students who have credit for Psychology 633.

*649. **Psychology of Language Laboratory.** Two credit hours. Spring Quarter. Four laboratory hours each week. Prerequisite, Psychology 648.

A training course in the use of apparatus and methods for the experimental investigation of language behavior.

650. **Minor Problems.** One or more credit hours. Autumn, Winter, Spring Quarters. Prerequisite, sixteen hours in psychology. All instructors.

Investigation of minor problems in the various fields of psychology.

By permission of the Head of the Department and the Director of the Bureau of Educational Research, students enrolled in this course may obtain credit for research work done under the auspices of the Bureau staff.

†651. **Psychology of the Elementary School Subjects.** Three credit hours. Three lectures each week. Prerequisite, Psychology 407 or 607. Mrs. Pressey.

An analysis of the specific psychological processes involved in arithmetic, reading, writing, and other elementary school subjects, with consideration of the conditions which promote learning in each subject, and examination of textbooks and methods from this point of view.

This course is not open to students who have credit for Psychology 410.

652. **Psychology of High School Subjects.** Three credit hours. Autumn Quarter. Three lectures each week. Prerequisite, Psychology 407 or 607. Mr. Pressey.

An analysis of the specific psychological processes involved in algebra, language, science, and other high school subjects, with consideration of the conditions which promote learning in each subject, and examination of textbooks and methods from this point of view.

This course is not open to students who have credit for Psychology 410.

653. **Special Response Categories.** Three credit hours. Autumn Quarter. Three lectures each week. Prerequisite, Psychology 646. Mr. Weiss.

An analysis of the more complex forms of human behavior. A continuation of Psychology 646.

654. **Advanced Statistics.** Three credit hours. Spring Quarter. Two lectures and one two-hour laboratory period each week. Prerequisite,

* Not given in 1927-1928.

† Not given during the academic year, 1927-1928.

Psychology 612 or School Administration 644 or equivalent. Mr. Toops.

Special cases in correlation; non-linear regression; straight lines of best fit construction of criteria; elementary probability; random sampling; derivation of commonly used equations; critical readings; construction of tables and graphs to meet the research needs of individual students.

655. Comparative Psychology. Three credit hours. Winter Quarter. Three lectures each week. Prerequisite, Psychology 401-402. Mr. Rexroad.

The principles of animal behavior in relation to human behavior. A study of the similarities and differences in the behavior of animals and of humans and the explanation of these similarities and differences, with special reference to those principles definitely involved in the organism's instinctive and acquired mode of adjusting to its environment.

656. Comparative Psychology. Three credit hours. Spring Quarter. Three lectures each week. Prerequisite, Psychology 655. Mr. Rexroad.

A continuation of Psychology 655.

This course is not open to students who have credit for Psychology 627.

657. Comparative Psychology Laboratory. Three credit hours. Autumn Quarter. One lecture each week and laboratory periods to be arranged. Prerequisite, Psychology 401-402. Mr. Rexroad.

The methods and results of investigation of animal behavior in relation to human behavior.

*658. Comparative Psychology Laboratory. Three credit hours. Winter Quarter. One lecture each week and laboratory periods to be arranged. Prerequisite, Psychology 657. Mr. Rexroad.

A continuation of Psychology 657.

659. Adult Testing Laboratory. Three credit hours. Autumn Quarter. Two three-hour laboratory periods each week. Prerequisite, ten hours of psychology. Mr. Toops.

A course designed for students who are preparing for positions in vocational guidance or personnel work in universities and those interested in the achievement of adults.

The giving, scoring, and interpretation of tests of university entrants.

Reading tests and tests of special capacities of adults. Planning a testing program for adults. Theories of adult testing. The content of the course will vary somewhat from year to year.

662. The Elementary and Pre-School Child. Three credit hours. Winter Quarter. Three lectures each week. Prerequisite, Psychology 407 or 402. Mrs. Pressey.

This course will present the elements of child nature, individual differences and development in children from infancy until adolescence. The course will be especially adapted to the needs of teachers and of others who have constant contact with children.

* Not given in 1927-1928.

701. Proseminary in Educational Psychology. Two credit hours. Autumn Quarter. One two-hour discussion each week. Prerequisites, Psychology 407 and permission of the instructor. Only school people in active service will be admitted. Mr. Pressey.

This course is offered exclusively for teachers in service. It will consist of lectures and readings upon one or more topics of importance in educational psychology. These topics will vary from year to year according to the needs of the group. Each teacher will be expected to work out some minor problem having to do with the main topic of the course.

FOR GRADUATES

An undergraduate student shall not be permitted to take any course in the "800" group except by permission of the Graduate Council.

801. Major Research.

803. Seminary in Psychology.

805. Contemporary Psychological Literature.

808. Psycho-Analysis.

For description of graduate courses in this department see the Bulletin of the Graduate School.

PUBLIC HEALTH

Office, Hamilton Hall

PROFESSOR HAYHURST, ASSISTANT PROFESSOR SELBERT

403. Child Health. Two credit hours. Spring Quarter. One lecture and one demonstration each week. Elective in the College of Education after the Freshman year. Education-Science Nursing, third year. Mrs. Selbert.

The principles of child welfare are considered including ante-natal, neo-natal, and post-natal periods of infancy; the pre-school and school age through early adolescent life. Disease conditions are not considered.

404. Principles of Public Health Nursing. Three credit hours. One Quarter. Autumn and Spring. Three recitations each week. Education-Science Nursing, first year. Mrs. Selbert.

The organization of public health nursing and the place of nursing in its relation to the various forms of medical, social, and public service. The best methods of administration as to the supervision and arrangement of practical work, classification and preservation of records and the presentation and publication of reports. This course is intended also to give a general grasp of measures to be followed outside of hospital nursing in various types of sickness, to relieve immediate needs and to teach hygiene and methods to prevent the spread of disease. Special branches of public health nursing are considered and the practical handling of individual problems is discussed.

406. Survey of Nursing. One credit hour. Spring Quarter. One lecture each week. Education-Science Nursing, first year. Mrs. Selbert.

A study of the development of nursing, its status in ancient times, and the ideals of modern nursing.

407. Elementary Nursing. Two credit hours. One Quarter. Autumn, Winter, Spring. Two lectures with demonstration each week. Education-Science Nursing, first year. Home Economics, fourth year. Three sections, each limited to twenty-five students. Mrs. Selbert.

Instruction in the fundamental principles on which nursing depends. The demonstration and practice of those nursing duties which may be performed in the earlier stages of training in the hospital and in home nursing.

451. Preventive Medicine for Nurses. Three credit hours. Winter Quarter. Three recitations each week. Elective in five-year curricula in Nursing after the third year. Intended primarily for students registered in curricula in Nursing. Mrs. Selbert.

The important facts and fundamental principles in preventive medicine are given consideration. Special attention is given to the methods and procedures for preventing the occurrence of the communicable diseases as well as the control of this group of diseases. The non-infectious diseases are also discussed from the standpoint of preventive medicine and the public health.

452-453. Public Health Nursing Field Work. Two credit hours. Two Quarters. Both 452 and 453 are given Autumn, Winter, Spring. Six hours of field work each week. Elective in five-year curricula in Nursing after the third year. Prerequisite, consent of the instructor. Mrs. Selbert and field workers.

A study is made of the medical and nursing service in various schools. The time and assignments for each student are arranged individually by the instructor.

454. Public Health Nursing Field Work, including Social Case Work. Thirteen credit hours. One Quarter. Autumn, Winter, Spring. Thirty-nine hours of field work each week. Elective in five-year curricula in Nursing after the third year. Prerequisite, Public Health 452-453. Mrs. Selbert and field workers.

Observation and experience with various nursing and social service organizations. Hospital and dispensary social service. The time and assignments for each student are arranged individually by the instructor.

FOR ADVANCED UNDERGRADUATES AND GRADUATES

601. Personal Hygiene. Three credit hours. Winter Quarter. Three lectures or recitations each week. Prerequisite, first two years of course preliminary to Medicine or five credit hours in college biological science. A previous course in chemistry is recommended. Not open to Freshmen or Sophomores. Mr. Hayhurst.

This course aims, in a somewhat technical manner, to point out the principles for maintaining personal health and efficiency.

602. Public Health Problems. Three credit hours. One Quarter. Autumn and Spring. Three recitations each week. Education-Science Nursing, fourth year. Prerequisite, one unit of high-school biological science or five credit hours in college biological science. A previous course in chemistry and physics is strongly recommended. Not open to Freshmen or Sophomores. Mr. Hayhurst.

A resume of theories and discoveries pertaining to the causes and prevention of disease. An elementary consideration of the public health aspects of such problems as food, supplies, milk, water, sewage and refuse disposal, air and ventilation, communicable diseases, quarantine, maternity and infant welfare, housing and school hygiene, camp and rural sanitation, public service hygiene, tuberculosis, cancer, nostrums and quackery, mental and industrial hygiene, vital statistics, health education and health administration.

603. Industrial Hygiene. Three credit hours. Winter Quarter. Three recitations each week. Prerequisite, five credit hours in college biological science. A previous course in chemistry and physics is strongly recommended or that it be preceded by Public Health 602. Not open to Freshmen or Sophomores. Mr. Hayhurst.

This course considers the hygiene of work and as such deals with the principles which underlie working efficiency, maximum production and the avoidance of loss of time due to ill-health. The course consists of didactic work, lecture and demonstrations covering the various health hazards which exist in connection with occupations, such as fatigue, inactivity, industrial infections, dust, faulty air-conditions and illumination, temperature extremes, poisons, abnormal atmospheric pressures, electrical hazards, etc. The methods of control, including governmental supervision, organization of industrial health services, physical examinations, the occupational diseases and compensation matters are included.

SCIENCE NURSING

501. Hospital Ward Duty, Drugs and Solutions. Eight to twelve credit hours. One Quarter. Summer, Autumn, Winter, Spring. One hour's lecture each week included in six hours of hospital ward duty each day for six days each week. Education-Science Nursing, first year. Prerequisite, first three Quarters of the curriculum in Science Nursing or its equivalent. Staff of University Hospital.

The student serves as a probationer in the wards of the University Hospital, and receives elementary instruction in the handling of drugs and solutions.

502. Hospital Ward Duty. Eight credit hours. One Quarter. Autumn, Winter, Spring. Four hours of hospital ward duty each day for six days each week. Education-Science Nursing, first year. Prerequisite, Science Nursing 501. Staff of University Hospital.

The student performs the duties of a nurse in training in the wards of the University Hospital.

503. Hospital Ward Duty. Sixteen credit hours. One Quarter. Summer, Autumn, Winter, Spring. Eight hours each day for six days

each week. Education-Science Nursing, second year. Prerequisite, Science Nursing 502. Staff of University Hospital.

The student performs the duties of a nurse in training in the wards of the University Hospital.

504. Elementary Pathology. One credit hour. Winter Quarter. One lecture each week. Education-Science Nursing, third year. Prerequisite, first two years of the curriculum in Science Nursing and Science Nursing 503. Dr. Scott and assistants.

A lecture course covering the elementary principles; retrogressive, inflammatory, and regenerative reactions of the tissues and the effects of special infectious agents upon the body; tumors.

505. Medical Nursing and Materia Medica. Four credit hours. Winter Quarter. Four lectures and demonstrations each week. Education-Science Nursing, third year. Prerequisite, first two years of the curriculum in Science Nursing and Science Nursing 503. Dr. Smith and assistants.

Hygiene of the sick room; diseases of the blood, of organs of circulation and lymphatics, of organs of respiration, of digestion, and of excretion. Drugs, systems of measurement, the care and use of equipment, administration, solutions; important drugs; the medicine closet.

506. Surgical Nursing and Operating Room Technique. Four credit hours. Winter Quarter. Four lectures and demonstrations each week. Education-Science Nursing, third year. Prerequisite, first two years of the curriculum in Science Nursing and Science Nursing 503. Staff of University Hospital.

Principles of septic and antiseptic surgery; fractures; surgical emergencies; pre-operative considerations; post-operative considerations; surgical tuberculosis; tumors; surgical conditions of the head, neck, chest, stomach, gall bladder, intestines, kidney and bladder, and fistulae and plastic surgery. The operating room; instruments and supplies; preparations for operation; local preparation of patient for operation; and preparation and duties of the nurse.

507. Hospital Ward Duty. Eight credit hours. One Quarter. Autumn, Winter, Spring. Four hours each day for six days each week. Education-Science Nursing, third year. Prerequisite, Science Nursing 503. Staff of University Hospital.

The student performs the duties of a nurse in training in the wards of the University Hospital.

508. Hospital Ward Duty. Sixteen credit hours. One Quarter. Summer, Autumn, Winter, Spring. Eight hours each day for six days each week. Education-Science Nursing, third year. Prerequisite, Science Nursing 507. Staff of University Hospital.

The student performs the duties of a nurse in training in the wards of the University Hospital.

509. Gynecological and Obstetrical Nursing. Three credit hours. Autumn Quarter. Three lectures each week. Education-Science Nursing, fourth year. Prerequisite, first three years of the curriculum in Science Nursing and Science Nursing 508. Staff of University Hospital.

Definition and brief history of gynecology; diseases of the reproductive organs and genito-urinary tract; examinations and gynecological operations. Mechanism and management of normal labor; after-care of the mother; care and artificial feeding of the new-born infant; physiology and hygiene of pregnancy; pathological pregnancy.

510. Orthopedic and Child Nursing. Three credit hours. Autumn Quarter. Three lectures each week. Education-Science Nursing, fourth year. Prerequisite, first three years of the curriculum in Science Nursing and Science Nursing 508. Staff of University Hospital.

Definition; deformities; apparatus used in orthopedic work; care of patients in plaster casts and braces; orthopedic operations. The normal child; nursing of sick children; diseases of digestive, respiratory, circulatory, nervous and genito-urinary systems; diseases of the blood and lymphatic glands; surgical conditions in children; social aspects of children's diseases.

511. Communicable Diseases and Special Senses Nursing. Three credit hours. Autumn Quarter. Three lectures each week. Education-Science Nursing, fourth year. Prerequisite, first three years of the curriculum in Science Nursing and Science Nursing 508. Staff of University Hospital.

The nursing conduct of cases of special diseases; methods of examination; methods of treatment.

512. Hospital Ward Duty. Eight credit hours. One Quarter. Autumn, Winter, Spring. Four hours each day for six days each week. Education-Science Nursing, fourth year. Prerequisites, first three years of the curriculum in Science Nursing and Science Nursing 508. Staff of University Hospital.

The student performs the duties of a nurse in training in the wards of the University Hospital.

513. Hospital Ward Duty. Eight credit hours. One Quarter. Autumn, Winter, Spring. Four hours each day for six days each week. Education-Science Nursing, fourth year. Prerequisite, first three years of the curriculum in Science Nursing and Science Nursing 512. Staff of University Hospital.

The student performs the duties of a nurse in training in the wards of the University Hospital.

514. Hospital Ward Duty. Sixteen credit hours. One Quarter. Summer, Autumn, Winter, Spring. Eight hours each day for six days each week. Education-Science Nursing, fourth year. Prerequisite, Science Nursing 513. Staff of University Hospital.

The student performs the duties of a nurse in training in the wards of the University Hospital.

EDUCATIONAL NURSING

653. Methods of Teaching Educational Nursing. Three credit hours. Spring Quarter. Three recitations each week. Education-Science Nursing, fourth year. Prerequisite, three years of training in an accredited school of nursing or senior standing in the College of Education or in Agriculture. Mrs. Selbert.

The selection and arrangement of subject matter, planning lessons and demonstrations, equipment for classroom, and other teaching helps are offered.

RHETORIC AND ENGLISH LANGUAGE

(See English)

ROMANCE LANGUAGES AND LITERATURES

Office, 104 Hayes Hall

PROFESSORS HENDRIX, MOORE, HAVENS, AND ROCKWOOD, ASSISTANT PROFESSORS HAMILTON, GUTIERREZ, FOURE, ANIBAL, AND RUSSELL, MISS HIER, MISS SCHONS, MRS. ARTHUR, MRS. FOURE, MISS WALSH, MR. DONAN, AND DEPARTMENT ASSISTANTS

French 401-402, 403-404 must precede all other courses in French except 405-406.

The undergraduate courses offered in French and Spanish beginning with third-year collegiate work fall into two general groups:

I. Literary—French 601-602, 605, 607-608, 609-610, 611-612, 613-614; Spanish 413-414, 607-608, 609-610, 611-612, 613-614, 615-616.

II. Linguistic—French 410, 623-624, 625-626, 627-628, 629; Spanish 413-414, 605-606. Students may emphasize one or both of these lines of study.

For students who enter with two years of high-school French the following outline course is recommended:

First Year. French 403-404 or 413-414.

Second Year: (1) French 601-602.

(2) French 410.

Third and Fourth Years: (1) French 605, 607-608, 609, 610, 611, 612, 613, 614.

(2) French 623-624, 625-626, 627, 628, and Principles of Education 740 (Teaching of French).

For students who enter with two years of high-school Spanish the following outline course is recommended:

First Year: Spanish 403-404.

Second Year: Spanish 413-414.

Third and Fourth Years: Spanish 605-606, 607-608, 609-610, 611-612, 613-614, 615-616, 617, 619, 620, and Principles of Education 745 (Teaching of Spanish).

To receive a departmental recommendation as a teacher of French, the student must have taken French 401-402, 403-404, 601-602, 627, 628, and Principles of Education 740 (Teaching of French), or their equivalent.

To receive a departmental recommendation as a teacher of Spanish, the student must have taken Spanish 401-402, 403-404, 413-414 or their equivalent; and in addition an advanced course, 619, 620, and the courses for teachers, Spanish 617, and Principles of Education 745 (Teaching of Spanish).

THE FRENCH CLUB

The French Club is a student organization conducted by the department and is under the supervision of Mr. and Mrs. Fouré. Formal meetings are held weekly. It has

been the practice of the French Club to stage one or more French plays annually for the last twenty years.

THE SPANISH CLUB

The Spanish Club is a student organization conducted by the department and is under the supervision of Mr. Gutierrez. The club presents one or two plays each year.

FRENCH

401. Elementary French. Five credit hours. One Quarter. Autumn, Winter, Spring. Five recitations each week. Sections in this course are limited to thirty-five students. All instructors.

Grammar and prose.

No student is allowed to take this course simultaneously with Spanish 401-402 or Italian 401-402.

402. Elementary French (Continued). Five credit hours. One Quarter. Autumn, Winter, Spring. Five recitations each week. Prerequisite, French 401. Sections in this course are limited to thirty-five students. All instructors.

Grammar and prose.

No student is allowed to take this course simultaneously with Spanish 401-402 or Italian 401-402.

403. Intermediate French. Five credit hours. One Quarter. Autumn, Winter, Spring. Five recitations each week. Prerequisite, French 402 or equivalent. Sections in this course are limited to thirty-five students. All instructors.

404. Intermediate French (Continued). Five credit hours. One Quarter. Autumn, Winter, Spring. Five recitations each week. Prerequisite, French 403 or equivalent. Sections in this course are limited to thirty-five students. All instructors.

405. Elementary Course in the Reading of French. Five credit hours. One Quarter. Autumn and Spring. Five recitations each week. Sections in this course are limited to thirty students. Not open to students in the Colleges of Arts, Commerce and Administration, and Education who intend to make language or literatures their major or minor. It is not accepted as a prerequisite for any course in the department except French 406. All instructors.

Grammar sufficient for graduate students and others desiring to concentrate on the acquirement of a reading knowledge of the language.

This is a beginning course and is not open to students who have completed any course in French.

406. Elementary Course in the Reading of French (Continued). Five credit hours. Winter Quarter. Five recitations each week. Prerequisite, French 405. Not open to students in the Colleges of Arts, Commerce and Administration, and Education who intend to make lan-

guage or literatures their major or minor. It is not accepted as a prerequisite for any other course in the department. All instructors.

Grammar sufficient for graduate students and others desiring to concentrate on the acquirement of a reading knowledge of the language.

This is a beginning course and is not open to students who have completed any course in French.

410. Elementary French Conversation and Composition. Five credit hours. One Quarter. Autumn, Winter, Spring. Five recitations each week. Prerequisites, French 404 with grade of "C" or better, and permission of the instructor. This course is conducted in French. Sections are limited to twenty students. Mr. Fouré, Mrs. Fouré, Miss Hier.

This course is not open to students who have credit for French 621.

413. Advanced French. Five credit hours. One Quarter. Autumn, Winter, Spring. Five recitations each week. Prerequisite, French 404 with grade not lower than "C."

Rapid reading of modern literature with special emphasis on the nineteenth century.

414. Advanced French. Five credit hours. One Quarter. Winter and Spring. Five recitations each week. Prerequisite, French 413.

Rapid reading of modern literature with special emphasis on the nineteenth century.

FOR ADVANCED UNDERGRADUATES AND GRADUATES

Students intending to major or minor in French are urged to elect the following courses outside of the department: English 805, History 624-625, Greek 701, Philosophy 601-602, German 655.

Students in the College of Education are required to take in addition French 627-628.

601. French Literature of the Seventeenth Century, 1600-1660. Five credit hours. Winter Quarter. Five lectures each week. Lectures, collateral reading, and reports. Prerequisite, French 404 with grade not below "C," or French 413-414. The class is limited to fifty students. Not open to Freshmen. Mr. Rockwood.

The principal literary movements of the age: formation of the school of 1660, The Libertines, growth of French comedy and tragedy, The Précieuses, the French Academy will be discussed. Selected works of Malherbe, De Viau, Descartes, Balzac, and Corneille will be read.

602. French Literature of the Seventeenth Century, 1660-1700. Five credit hours. One Quarter. Autumn and Spring. Five lectures each week. Lectures, collateral reading, and reports. Prerequisite, French 404 with grade not below "C," or French 413-414. The class is limited to fifty students. Not open to Freshmen. Mr. Rockwood.

The school of 1660. Quarrel of the Ancients and the Moderns. Selected works of Molière, Racine, Pascal, La Bruyère, La Fontaine, La Rochefoucauld will be read.

*605. French Literature of the Fifteenth and Sixteenth Centuries. Three credit hours. Autumn Quarter. Three lectures each week. Given biennially. Prerequisite, French 413-414 or 601-602. Mr. Moore.

Villon, Rabelais and Montaigne.

607. French Literature of the Eighteenth Century, 1700-1750. Three credit hours. Winter Quarter. Three lectures each week. Given biennially, alternating with French 605. Prerequisite, French 413-414 or 601-602. Mr. Havens.

Rapid reading, with lectures and reports. Fontenelle, Bayle, Crebillon, Voltaire, Montesquieu, Marivaux and others.

608. French Literature of the Eighteenth Century, 1750-1789. Three credit hours. Spring Quarter. Three lectures each week. Prerequisite, French 413-414 or 601-602. Mr. Havens.

Rapid reading, with lectures and reports. Voltaire, Rousseau, Diderot, Beaumarchais, and others.

609. The French Novel to 1850. Three credit hours. Autumn Quarter. Three lectures each week. Given biennially, alternating with French 611-612. Prerequisite, French 413-414 or 601-602. Mr. Havens.

Rapid survey of the French novel during the sixteenth, seventeenth, and eighteenth centuries and the first half of the nineteenth century. Mme. de Staël, Chateaubriand, George Sand, Hugo, and Balzac. Lectures, reports, and collateral reading.

610. The French Novel, 1850 to the Present Day. Three credit hours. Winter Quarter. Three lectures each week. Given biennially, alternating with French 611-612. Prerequisite, French 413-414 or 601-602. Mr. Havens.

Flaubert, Maupassant, Zola, Daudet, France, Bazin, Loti, and others. Lectures, reports, and collateral reading.

*611. The Comedy of Manners in the Nineteenth Century, 1800-1880. Three credit hours. Winter Quarter. Three lectures each week. Given biennially, alternating with French 609-610. Prerequisite, French 413-414 or 601-602. Mr. Rockwood.

La Pièce à Thèse, La Pièce Bien Faite, Dumas fils, Augier, Scribe, Sardou. Rapid reading with lectures and reports.

*612. The Comedy of Manners in the Nineteenth Century, 1880-1922. Three credit hours. Spring Quarter. Three lectures each week. Given biennially, alternating with French 609-610. Prerequisite, French 413-414 or 601-602. Mr. Rockwood.

Le Theatre Libre, Becque, Curot, Hervieu, Lavedan, Donnay, Bernstein, Bataille, Guityry. Rapid reading with lectures and reports.

* Not given in 1927-1928.

*613. History of French Literature, 942-1660. Three credit hours. Winter Quarter. Three lectures each week. Prerequisites, French 410 and at least one "600" course in French literature. Given biennially, alternating with French 625-626. This course is conducted in French. Mr. Fouré.

*614. History of French Literature, 1660-1922. Three credit hours. Spring Quarter. Three lectures each week. Prerequisites, French 410 and at least one "600" course in French literature. Given biennially, alternating with French 625-626. This course is conducted in French. Mr. Fouré.

623. Cours de Style. Three credit hours. One Quarter. Autumn and Winter. Three recitations each week. Prerequisites, French 410, 413-414, and permission of the instructor. This course is conducted in French. It is limited to twenty students. Mr. Fouré.

624. Cours de Style (Continued). Three credit hours. One Quarter. Winter and Spring. Three recitations each week. Prerequisites, French 623 and permission of the instructor. This course is conducted in French. It is limited to twenty students. Mr. Fouré.

625. Explication de Textes. Three credit hours. Winter Quarter. Three recitations each week. Given biennially, alternating with French 613-614. Prerequisites, French 623, 624, and a "600" course in French literature. This course is conducted in French. Mr. Fouré.

The course aims to introduce the student to a method of literary appreciation based upon a critical study of well selected texts representing the main characteristics of each writer. Examples will be taken from seventeenth and eighteenth century authors.

626. Explication de Textes (Continued). Three credit hours. Spring Quarter. Three recitations each week. Given biennially, alternating with French 613-614. Prerequisites, French 623, 624, and a "600" course in French literature. This course is conducted in French. Mr. Fouré.

Selections from the nineteenth century and contemporary authors.

627. French Phonetics. Three credit hours. One Quarter. Winter and Spring. Prerequisites, six Quarters of collegiate French or the equivalent with a grade not less than "C," junior standing, the consent of the department, and permission of the instructor. Required of all students desiring the department recommendation as a teacher of French. The class is limited to twelve. Mr. Rockwood.

The formation of French sounds. Lectures, with exercises in the use of the

* Not given in 1927-1928.

symbols of the International Phonetic Association. A systematic study of the rules of French pronunciation. Careful drill in the reading of French. Designed for advanced students who expect to teach French.

628. Review of French Syntax. Three credit hours. Autumn Quarter. Open to Seniors and graduate students who have had six Quarters of collegiate French or the equivalent, with a grade not less than "C." Mr. Hamilton.

A careful elucidation of French grammar, with composition to illustrate. Designed for advanced students who expect to teach French.

705-706-707. Honors Course in French. Three to five credit hours. Autumn, Winter, Spring Quarters. Work in conference, library or phonetics laboratory. Prerequisites, senior standing, with the record of "A" in at least half of the French courses and an average of "B" in the remainder, and the approval of the department.

This course is intended to give undergraduates of special aptitude a greater opportunity to do independent study than is possible in the ordinary course.

NOTE: TEACHING COURSES. For the Teaching Course in this department see the Department of Principles of Education, Course 740.

ITALIAN

401. Elementary Italian. Five credit hours. Autumn Quarter. Five recitations each week. Mr. Moore.

Grandgent's Italian Grammar.

This course may not be taken simultaneously with French 401-402 or Spanish 401-402.

402. Elementary Italian (Continued). Five credit hours. Winter Quarter. Five recitations each week. Prerequisite, Italian 401. Mr. Moore.

Grandgent's Italian Grammar. Modern Italian prose.

This course may not be taken simultaneously with French 401-402 or Spanish 401-402.

FOR ADVANCED UNDERGRADUATES AND GRADUATES

601. Modern Italian Literature, 1800-1850. Five credit hours. Spring Quarter. Five recitations each week. Prerequisite, Italian 402. Mr. Moore.

Foscolo, Manzoni, Pellico, Leopardi.

602. Modern Italian Literature, 1851-1900. Five credit hours. Autumn Quarter. Five recitations each week. Prerequisite, Italian 402. Mr. Moore.

Rovetta, Carducci, Giacosa, Fogazzaro.

*607. Italian Literature of the Renaissance. Three credit hours. Autumn Quarter. Three recitations each week. Given biennially, alternating with Italian 611. Prerequisite, Italian 602 or the permission of the instructor. Mr. Moore.

Bolardo, Ariosto, Pulci, Machiavelli. Lectures, collateral reading, and reports.

*608. Italian Literature of the Renaissance (Continued). Three credit hours. Winter Quarter. Three recitations each week. Given biennially, alternating with Italian 612. Prerequisite, Italian 602 or the permission of the instructor. Mr. Moore.

Bandello, Il Lasca, Castiglione, Cellini, Tasso. Lectures, collateral reading, and reports.

609. Survey of Italian Literature to 1400. Three credit hours. Winter Quarter. Three lectures each week. No prerequisites, and no knowledge of a foreign language required. Not open to Freshmen and Sophomores. Mr. Moore.

English translations of Dante, Petrarch, Boccaccio. Lectures, readings, and reports will be in English.

610. Survey of Italian Literature, 1400-1900. Three credit hours. Spring Quarter. Three lectures each week. No prerequisites, and no knowledge of a foreign language required. Not open to Freshmen and Sophomores. Mr. Moore.

English translations of Ariosto, Machiavelli, Cellini, Castiglione, Tasso, Manzoni, and others. Lectures, readings, and reports will be in English.

611. Dante's Life and Works. Three credit hours. Autumn Quarter. Three lectures each week. Alternates biennially with Italian 607. Prerequisite, Italian 602 or the permission of the instructor. Mr. Moore.

Reading of the Vita Nuova and The Inferno, Cantos 1-16.

612. Dante's Life and Works (Continued). Three credit hours. Winter Quarter. Three lectures each week. Alternates biennially with Italian 608. Prerequisite, Italian 611. Mr. Moore.

Reading of The Inferno, Cantos 17-34, Purgatorio and Paradiso.

SPANISH

400. Review Spanish. No credit. Autumn Quarter. Five recitations each week. Sections in this course are limited to twenty students. To this course are assigned students unable to maintain themselves in Spanish 403.

401. Elementary Spanish. Five credit hours. One Quarter. Autumn, Winter, Spring. Five recitations each week. Sections in this course are limited to thirty-five students. All instructors.

The elements of Spanish grammar with abundant oral and written exercises.

* Not given in 1927-1928.

Especial attention to ear training and oral practice. A practical phonetics laboratory is at the disposal of the students.

No student may take this course simultaneously with French 401-402 or Italian 401-402.

402. Elementary Spanish (Continued). Five credit hours. One Quarter. Autumn, Winter, Spring. Five recitations each week. Sections in this course are limited to thirty-five students. All instructors.

The elements of Spanish grammar with abundant oral and written exercises. Especial attention to active vocabulary. Elementary reading based on Spanish geography, history, customs, and manners. A practical phonetics laboratory is at the disposal of the students.

No student may take this course simultaneously with French 401-402 or Italian 401-402.

403. Intermediate Spanish. Five credit hours. One Quarter. Autumn, Winter, Spring. Five recitations each week. Prerequisite, Spanish 402 or an equivalent. Sections in this course are limited to thirty-five students. All instructors.

404. Intermediate Spanish (Continued). Five credit hours. One Quarter. Autumn, Winter, Spring. Five recitations each week. Prerequisite, Spanish 403 or an equivalent. Sections in this course are limited to thirty-five students. All instructors.

405. Commercial Correspondence. Five credit hours. Winter Quarter. Five recitations each week. Prerequisite, Spanish 404. Mr. Gutierrez.

406. Customs and Manners of Spain. Three credit hours. Spring Quarter. Three recitations each week. Prerequisite, Spanish 405. Mr. Gutierrez.

413. Advanced Spanish. Five credit hours. One Quarter. Autumn, Winter, Spring. Five recitations each week. Prerequisite, Spanish 404 with grade not lower than "C." Mr. Gutierrez.

Rapid reading of modern novels and plays, with emphasis on the early period of the nineteenth century.

This course is not open to students who have credit for Spanish 603.

414. Advanced Spanish. Five credit hours. One Quarter. Autumn, Winter, Spring. Five recitations each week. Prerequisite, Spanish 413. Mr. Gutierrez.

Rapid reading of novels and plays.

This course is not open to students who have credit for Spanish 604.

FOR ADVANCED UNDERGRADUATES AND GRADUATES

Students intending to major in Spanish are urged to elect the following courses outside of the department: English 805, History 435, Philosophy 601-602, and German 655.

605. Advanced Composition and Conversation. Three credit hours. Autumn Quarter. Three recitations each week. Prerequisite, Spanish 405 and 406 or an equivalent. Mr. Gutierrez.

This course, conducted wholly in Spanish, is designed especially for prospective teachers and for persons desiring a practical command of the language. The subject matter will be, in large part, the geography and history of Spain and Spanish-America.

606. Advanced Composition and Conversation (Continued). Three credit hours. Winter Quarter. Three recitations each week. Prerequisite, Spanish 605. Mr. Gutierrez.

This course, conducted wholly in Spanish, is designed especially for prospective teachers and for persons desiring a practical command of the language. The subject matter will be, in large part, the geography and history of Spain and Spanish-America.

607. The Modern Spanish Novel. Five credit hours. Autumn Quarter. Five recitations each week. Given biennially, alternating with Spanish 609-610. Prerequisite, Spanish 413-414. Mr. Hendrix.

A careful study of the development of the modern Spanish novel, reading of representative authors. Lectures, collateral reading, and reports.

608. The Modern Spanish Novel (Continued). Five credit hours. Winter Quarter. Five recitations each week. Given biennially, alternating with Spanish 609-610. Prerequisite, Spanish 413-414. Mr. Hendrix.

A careful study of the development of the modern Spanish novel, reading of representative authors. Lectures, collateral reading, and reports.

***609. Romantic Drama and Poetry of the Nineteenth Century.** Five credit hours. Winter Quarter. Five recitations each week. Given biennially, alternating with Spanish 607-608. Prerequisite, Spanish 413-414. Mr. Hendrix.

A survey of the movements in Spanish drama and poetry during the first half of the nineteenth century. Lectures, collateral reading, and reports.

***610. Modern Spanish Drama.** Five credit hours. Spring Quarter. Five recitations each week. Given biennially, alternating with Spanish 607-608. Prerequisite, Spanish 413-414. Mr. Hendrix.

A survey of the movements in Spanish drama and poetry during the second half of the nineteenth century. Lectures, collateral reading, and reports.

611. Drama of the Golden Age. Five credit hours. Autumn Quarter. Five recitations each week. Given biennially, alternating with Spanish 613-614. Prerequisite, Spanish 413-414. Mr. Anibal.

An intensive study of a limited number of plays of the representative dramatists. Lectures, collateral reading, and reports.

612. Drama of the Golden Age (Continued). Five credit hours. Winter Quarter. Five recitations each week. Given biennially, alter-

* Not given in 1927-1928.

nating with Spanish 613-614. Prerequisite, Spanish 413-414. Mr. Anibal.

An intensive study of a limited number of plays of the representative dramatists. Lectures, collateral reading, and reports.

*613. Prose of the Golden Age. Five credit hours. Autumn Quarter. Five recitations each week. Given biennially, alternating with Spanish 611-612. Prerequisite, Spanish 413-414.

A study of the prose of the period with especial emphasis on the novel. Lectures, collateral reading, discussion, and reports.

†614. Cervantes. Five credit hours. Five recitations each week. Given biennially, alternating with Spanish 611-612. Prerequisite, Spanish 413-414.

A study of the works of Cervantes with special emphasis on the Quixote. Lectures, collateral reading, discussion, and reports.

615. Survey of Spanish Literature from the Earliest Times to the End of the Nineteenth Century. Five credit hours. Winter Quarter. Five recitations each week. Prerequisite, Spanish 413-414. Mr. Anibal.

Lectures, collateral reading, and reports.

616. Survey of Spanish Literature from the Earliest Times to the End of the Nineteenth Century (Continued). Five credit hours. Spring Quarter. Five recitations each week. Prerequisite, Spanish 413-414. Mr. Anibal.

Lectures, collateral reading, and reports.

617. Advanced Syntax. Three credit hours. Autumn Quarter. Three recitations each week. Prerequisite, Spanish 413-414 and the consent of the instructor. Mr. Russell.

Study of syntax.

619. Sound: Laboratory Phonetics. Five credit hours. Autumn Quarter. Five recitations each week. Prerequisite, junior standing. Mr. Russell.

Study and analysis of sound in its physiological aspects. Training in the observation, recording, and analysis of speech and in the correction of speech defects.

620. Spanish Phonetics. Five credit hours. Winter Quarter. Five recitations each week. Prerequisite, Spanish 413-414. Mr. Russell.

Careful and detailed study of special problems involved in teaching Spanish to English speaking students. Laboratory analysis of differences between English and Spanish pronunciation.

* Not given in 1927-1928.

† Not given during the academic year, 1927-1928.

625. The Spanish Ballad. Five credit hours. Spring Quarter. Five recitations each week. Prerequisite, Spanish 413-414.

A study of the origins and the development of the Spanish Ballad. Lectures, collateral reading, discussion, and reports.

705-706-707. Honors Course in Spanish. Three to five credit hours. Autumn, Winter, Spring Quarters. Work in conference, library, or phonetics laboratory. Prerequisites, senior standing, with a record of "A" in at least half of the Spanish courses and an average of "B" in the remainder, and the approval of the department.

This course is intended to give undergraduates of special aptitude a greater opportunity to do independent study than is possible in the ordinary course.

NOTE: TEACHING COURSES. For the Teaching Course in this department see the Department of Principles of Education, Course 745.

ROMANCE LANGUAGES

FOR GRADUATES

An undergraduate student shall not be permitted to take any course in the "800" group except by permission of the Graduate Council.

- 801. Introduction to Old French.
- 802. Introduction to Old French (Continued).
- *803. Old Provençal.
- *804. Old Provençal (Continued).
- 805. Old Spanish.
- 806. Old Spanish (Continued).
- *807. The French Romantic Novel.
- *808. French Romantic Drama.
- 809. Research in French Language and Literature.
- 810. Research in Spanish Language and Literature.
- 811. Seminary in French Literature.
- 812. Seminary in French Literature (Continued).
- 813. Old French Literature.
- 815. Seminary in Spanish Literature.

For description of graduate courses in this department see the Bulletin of the Graduate School.

* Not given in 1927-1928.

RURAL ECONOMICS

Office, 113 Townshend Hall

PROFESSOR FALCONER, ASSISTANT PROFESSOR LIVELY

FOR ADVANCED UNDERGRADUATES AND GRADUATES

606. Sociology of Farm Folk. Five credit hours. Spring Quarter. Prerequisite, Sociology 401 or its equivalent. Not open to students who have credit for Rural Economics 405. Mr. Lively.

A more comprehensive course than Rural Economics 405, designed to meet the needs of students who have had an acceptable course in sociology.

607. Rural Social Organization. Three credit hours. One Quarter. Autumn and Spring. Prerequisite, Rural Economics 405 or 606 or permission of the instructor. Mr. Lively.

The need of rural organization; the conditions and units of successful rural organization, including a study of rural group life; the family, neighborhood, and community; the agencies and methods of rural organization including a survey of existing organizations, their scope and aims, characteristics of successful leadership, its source and training; forces which favor and retard rural organization. Readings, lectures, discussions, and investigations.

SCHOOL ADMINISTRATION

Office, 210 Education Building

PROFESSORS LEWIS AND McCracken, ASSISTANT PROFESSORS REEDER AND HECK, MR. MILLER, AND DEPARTMENT ASSISTANTS

FOR ADVANCED UNDERGRADUATES AND GRADUATES

600. Fundamentals in School Administration. Three credit hours. One Quarter. Autumn, Winter, Spring. Three lectures each week. Assigned readings. Required of all students in the College of Education. Prerequisite, junior standing and for graduate credit, one year of experience. All instructors.

Treatment of those fundamental problems in school administration which affect the teacher's welfare. Designed as a basic course for students intending to major in school administration and to give teachers a clearer understanding of the problems confronting the school administrator and of the teacher's part in solving them. Ohio school laws, regulations and decisions.

This course is not open to students who have credit for School Administration 401, 402, 403, or 404.

601. Child Accounting. Three credit hours. One Quarter. Autumn, Winter, Spring. Three lectures each week. Assigned readings, investigations, and reports. Required of all students in the College of Education. Prerequisite, School Administration 600 and for graduate credit, one year of experience. Mr. Heck.

Compulsory education laws and working certificates of Ohio; main requirements in other states. Census—information it should secure, its use, legal requirements in different states. Attendance—organization of departments, amount and causes of non-

attendance, devices to improve attendance. School record systems—forms used, items recorded, and uses. Reporting systems. Need of uniformity in recording and reporting systems. Age-grade-progress studies. Elimination, grading, and promotion. Classification. Definition of terminology. Visiting teacher. Marking systems.

604. Administration of the Curriculum. Three credit hours. Spring Quarter. Three lectures each week. Assigned readings, investigations, and reports. Open to Seniors and graduate students with permission of the instructor in charge. Prerequisite, School Administration 600 and for graduate credit, one year of experience. Mr. Ashbaugh.

An examination of the experimental evidence bearing upon the administrative problems concerned with the curriculum. Placement of subject matter in the grades; program making for different types of schools; problems involved; regular and special subjects. Standards for selection of textbooks; administration of free textbooks.

This course is not open to students who have credit for School Administration 642.

605. Personnel Administration in Education. Three credit hours. Winter Quarter. Three lectures each week. Assigned readings and reports. Open to Seniors and graduate students with permission of the instructor in charge. Prerequisite, School Administration 600 and for graduate credit, one year of experience. Mr. Lewis.

A study of personnel problems that arise in the management of the supervisory and teaching staff of a public school system with special attention to methods of selection, appointment, in-service preparation, assignment, rating, teacher's load, marital condition, promotion, absenteeism, contracts, certification, dismissal, ethics, pensions, tenure turnover, salary schedules, etc.

607. School Finance. Three credit hours. Winter Quarter. Three lectures each week. Assigned readings, investigations, and reports. Open to Seniors and graduate students with permission of the instructor in charge. Prerequisite, School Administration 600 and for graduate credit, one year of experience. Mr. Reeder.

Present and potential sources of revenue; ability to support education; schemes of state aid; bases of distribution of state moneys; financial reports and surveys.

608. Business Management of Schools. Three credit hours. Spring Quarter. Three lectures each week. Assigned readings, investigations, and reports. Open to Seniors and graduate students with permission of the instructor in charge. Prerequisite, School Administration 600 and for graduate credit, one year of experience. Mr. Reeder.

Making the budget; payment for operation and maintenance of buildings; depreciation, insurance and bond issues; purchase and distribution of supplies; taking inventories; studies of unit costs; systems of accounting and bookkeeping; the business manager.

609. Administration of Extra-curricular Activities. Three credit hours. Winter Quarter. Three lectures each week. Assigned readings, investigations, and reports. Prerequisite, School Administration 600 and for graduate credit, one year of experience. Mr. Lewis.

A study of those activities which fall outside of the group for which academic

credit is ordinarily given. The relation of school administration to non-school community activities. Responsibility of the principal and superintendent for the school as a community center.

610. The Administration of Rural Education. Three credit hours. Autumn Quarter. Three lectures each week. Assigned readings, investigations, and reports. Prerequisite, School Administration 600 and for graduate credit, one year of experience. Mr. McCracken.

An analysis of the problems of county and village superintendents; factors underlying rural school administrative problems; comparison of rural administrative problems in Ohio with those in other states.

611. State Administration of Education. Three credit hours. Spring Quarter. Three lectures each week. Assigned readings, investigations, and reports. Open to Seniors and graduate students. Prerequisite, six hours of school administration and for graduate credit, one year of experience. Mr. McCracken.

A comparative study of school administration in the various American states including such topics as federal and state policies, forms of control, revenue and its apportionment, the state and the teacher, the state and the child, the state and non-state education.

618-619-620. Minor Research Problems. Two to four credit hours. Autumn, Winter, Spring Quarters. Prerequisite, senior standing. Admission only on permission of the instructor and the chairman of the department. All instructors.

Investigation of minor problems in the various fields of school administration. A written report on the assigned problem will be required.

By permission of the Head of the Department and the Director of the Bureau of Educational Research, students enrolled in this course may obtain credit for research work done under the auspices of the Bureau staff.

621-622-623. Proseminary (Teachers in Service). Two credit hours. Autumn, Winter, Spring Quarters. Two lectures each week. Assigned readings and reports. Open to superintendents, principals, and teachers in service by permission of the instructor in charge. Prerequisite, School Administration 600 and for graduate credit, one year of experience. Mr. Reeder, Mr. Heck.

Topics for study will be determined by the group within certain limits set by the department.

624. Administration of Standard Tests in Elementary Schools. Three credit hours. Autumn Quarter. Three lectures each week. Assigned readings and reports. Open to Seniors and graduate students of experience with permission of the instructor in charge. Prerequisites, School Administration 600 and 643 and for graduate credit, one year of experience.

Selection of tests and organization of testing program for elementary schools; administrative problems involved in different types of schools and school systems;

publicity and reports; use of data in formulating and evaluating administrative policies; remedial programs; the organization and work of bureaus of educational research.

This course is not open to students who have credit for School Administration 615.

625. Administration of Standard Tests in Secondary Schools. Three credit hours. Winter Quarter. Three lectures each week. Assigned readings and reports. Open to Seniors and graduate students of experience with permission of the instructor in charge. Prerequisites, School Administration 600 and 643 and for graduate credit, one year of experience.

Selection of tests and organization of testing program for secondary schools; the use of mental and educational tests in classification, diagnosis, prognosis, and educational guidance; adaptations of organization, curricula and method to the educational needs of pupils of junior and senior high school age; recent investigations through the use of tests in the field of secondary education.

This course is not open to students who have credit for School Administration 615.

626. Administration of Health Education. Three credit hours. Spring Quarter. Three lectures each week. Assigned readings, investigations and reports. Prerequisite, School Administration 600 and for graduate credit, one year of experience. Mr. McCracken.

The place of health administration in school administration. Medical inspection; school nurse, dentist, and home visitor. Relation of school authorities to public health education. Hygiene of instruction; health of the teacher.

This course is not open to students who have credit for School Administration 602.

627. Administration of Vocational Education. Three credit hours. Spring Quarter. Three lectures each week. Assigned readings, investigations and reports. Open to Seniors and graduate students with permission of instructor in charge. Prerequisite, School Administration 600 and for graduate credit, one year of experience. Mr. Horridge.

The administrative problems of vocational education, viewed from the angle of public school officials. Relation of vocational education to other types of education; national, state, and local organization and support of different types of vocational education; cooperative agreements and relationships; guidance and placement problems; types of curricula; costs; qualifications of instructors.

628. Administrative Problems of the Elementary School Principal. Three credit hours. Winter Quarter. Three lectures each week. Assigned readings and reports. Prerequisite, one year of experience and six hours of school administration. Open on permission of the instructor in charge. Mr. Lewis.

An analysis of the work of the elementary school principal. The principal's relation to: the community, parents, pupils, building custodian, teachers, superintendent, supervisors, and other officials of the central office. Different types of elementary schools—e.g., platoon, duplicate, departmentalized, three track system, graded mental levels. Qualifications necessary for effective leadership. Office routine, business management supervision.

629. Administrative Problems of the Secondary School Principal. Three credit hours. Autumn Quarter. Three lectures each week. Assigned readings and reports. Prerequisite, one year of experience and six hours of school administration. Open on permission of the instructor in charge. Mr. Lewis.

An analysis of the work of the secondary school principal. The principal's relation to: community, parents, pupils, building custodian, teachers, superintendent, and other officials of the central office.

Study of the special administrative problems peculiar to different types of secondary schools—e.g., 4 year, 2-4 plan, 3-3 plan, and 6-year high school; also, such high schools as the cosmopolitan, the vocational, and the academic. Consideration of the special problems in administration of high schools in rural sections, villages, cities. Relation of high school to elementary school and to college; to the junior college as an extension of the secondary school.

†631. Organization of the Junior High School. Three credit hours. Six lectures each week. Assigned readings and reports. Prerequisite, one year of experience and six hours of school administration. Open upon permission of the instructor in charge.

A functional analysis of the work of the junior high school principal. Adaptation to school organization needed for attaining the objectives of the junior high school. The problems involved in junior high school organization in city schools and county school systems.

636. School Publicity. Two credit hours. Autumn Quarter. Two lectures each week. Assigned readings, investigations and reports. Open to superintendents, principals, and graduate students of experience by permission of the instructor in charge. Prerequisite, six hours of school administration and for graduate credit, one year of experience.

A study of both continuous and campaign publicity for schools through use of contests, exhibits, printed reports, newspapers, etc.; organization of publicity; means of securing support; the checking of results.

637. Administration of Special Education. Three credit hours. Spring Quarter. Three lectures each week. Assigned readings and reports. Open to Seniors and graduate students with permission of the instructor in charge. Prerequisites, School Administration 600 and 601 and for graduate credit, one year of experience. Mr. Heck.

History and development of special schools and classes; types defined; place in education; state encouragement and regulations; types of control; internal government; buildings and rooms; equipment; costs; teachers-training, experience, salaries; selection of other employees; characteristics of children; principles governing admittance, retention, and withdrawal; curriculum—academic, industrial, extra-curricular; methods of follow-up, etc.

†640. Administration of the Curriculum in the Elementary School. Two credit hours. Assigned readings, investigations, and reports. Open to Seniors and graduate students with permission of the instructor in

† Not given during the academic year, 1927-1928.

charge. Prerequisite, School Administration 600 and for graduate credit, one year of experience. Mr. Ashbaugh.

An examination of the experimental evidence bearing upon the administrative problems concerned with the curriculum of the first six grades. Placement of subject matter in the elementary grades; program making for different types of schools; problems involved; regular and special subjects. Standards for selection of textbooks; administration of free textbooks.

This course is not open to students who have credit for School Administration 604.

†642. Administration of the Curriculum in the Secondary School. Two credit hours. Assigned readings, investigations, and reports. Open to Seniors and graduate students with permission of the instructor in charge. Prerequisite, School Administration 600 and for graduate credit, one year of experience.

A treatment of the same topics as in School Administration 640 but with application to the upper six grades.

This course is not open to students who have credit for School Administration 604.

†643. Educational Statistics: Elementary. Three credit hours. Two lectures and one two-hour laboratory period each week. Not open to Freshmen or Sophomores. Mr. Heck.

A basic statistical course for students intending to conduct major or minor research. Frequency distributions; methods of measuring central tendencies and variability; construction of graphs and charts; interpretation of results in terms of probability; simple treatment of correlation.

This course is not open to students who have credit for Psychology 608 or School Administration 613.

NOTE: Students desiring to study statistics in the Autumn or Winter Quarter will elect Psychology 608 or 612.

†644. Educational Statistics: Intermediate. Three credit hours. Two lectures and one two-hour laboratory period each week. Prerequisite, Psychology 608 or School Administration 613 or 643, or equivalent. Mr. Buckingham.

Fuller treatment of correlation; regression coefficients and equations; partial and multiple correlation; uses of normal probability curve; reliability and validity of test data; comparable measures.

This course is not open to students who have credit for Psychology 612.

NOTE: Students desiring to study statistics in the Autumn or Winter Quarter will elect Psychology 608 or 612.

†645. Administration of School Libraries. Two credit hours. Four lectures each week. Assigned readings and reports. Open to Seniors and graduate students with permission of the instructor in charge. Pre-

† Not given during the academic year, 1927-1928.

requisite, School Administration 600 and for graduate credit, one year of experience. Miss Voegelein.

Designed to meet the needs of school librarians and general administrative school officers. Principal topics: history and development of the school library; its place in educational systems; standards and state regulations; rooms, equipment, and budgets; selection, acquisition, and care of books; publicity and cooperation with other agencies; instruction in the use of books; relation of librarian to teachers and school officials.

647. Planning and Construction of School Buildings. Three credit hours. Autumn Quarter. Three lectures each week. Assigned readings, observation trips, and reports. Open to Seniors and graduate students with permission of the instructor in charge. Prerequisite, School Administration 600 and for graduate credit, one year of experience. Mr. McCracken.

A study of types of buildings, choice of site, construction and suitability for educational needs. The use of score cards for rating buildings—rural, village, and city. Standards for maintenance, repairs, and janitorial service. Methods of studying efficiency of various types of service systems.

This course is not open to students who have credit for School Administration 606.

648. Equipment of School Buildings. Two credit hours. Spring Quarter. Two lectures each week. Assigned readings, observation trips, and reports. Open to Seniors and graduate students with permission of the instructor in charge. Prerequisite, School Administration 600 and for graduate credit, one year of experience. Mr. McCracken.

A study of present-day equipment for school buildings. Layouts for special and regular rooms; fixed and movable furniture. Methods of determining choice in relation to quality, use, and cost.

FOR GRADUATES

An undergraduate student shall not be permitted to take any course in the "800" group except by permission of the Graduate Council.

800. The Preparation of Theses and Other Scientific Papers.

801. Administration of Normal Schools and Colleges.

802. Seminary in School Administration.

803. Ad Interim Projects.

805-806-807. Major Research Problems.

†**810. Social Foundations of Public School Administration.**

†**812. Administration of National Systems of Education.**

† Not given during the academic year, 1927-1928.

- †815. Seminary in County School Administration.
- †816. Seminary in School Finance and Business Management.
830. Administrative Problems of the City Superintendent.

For description of graduate courses in this department see the Bulletin of the Graduate School.

SCIENCE NURSING

(See Public Health)

SHOPWORK

(See Industrial Engineering)

SOCIOLOGY

Office, 115 Commerce Building

PROFESSORS HAGERTY, NORTH, LUMLEY, MARK, AND MILLER, ASSISTANT
PROFESSOR JONES, MR. DENUNE, MISS SPAETH, MR. WANG, MR. MILLS,
MR. PATERSON, AND DEPARTMENT ASSISTANTS

401-402. Principles of Sociology. Five credit hours. Two Quarters. Both 401 and 402 are given Autumn, Winter, Spring. Not open to Freshmen. Mr. Hagerty, Mr. North, Mr. Lumley, Miss Mark, Mr. Miller, instructors and assistants.

A study of the fundamental ideas and principles of sociology. Syllabus, assigned reading, lectures, discussions, reports.

410. Principles of Sociology. Five credit hours. One Quarter. Autumn, Winter, Spring. Not open to Freshmen. Mr. Denune.

A study of the fundamental principles of sociology designed especially for students in Industry. The nature of society; the social forces; social evolution; some typical social problems such as those of industry, eugenics, education, and democracy.

This course is not open to students who have credit for Sociology 401-402.

411. Introduction to Anthropology. Five credit hours. Autumn Quarter. Textbooks, lectures, papers, and discussions. Not open to Freshmen. Miss Spaeth.

The field of anthropology; origin and antiquity of man, his essential characteristics, relation to the animal kingdom; the criteria of race distinction, the several races and some anthropological problems.

† Not given during the academic year, 1927-1928.

412. Social Anthropology. Five credit hours. Winter Quarter. Textbooks, lectures, papers, and discussions. Not open to Freshmen. Prerequisite, Sociology 411.

A study and analysis of types of social organization of primitive man, such as the clan, family, political organization, religion, etc.

FOR ADVANCED UNDERGRADUATES AND GRADUATES

601. The Family. Four credit hours. One Quarter. Winter and Spring. Prerequisite, Sociology 401-402. Miss Spaeth.

A study of the matrimonial institutions and family organization in the different stages of social development—primitive, Greek, Roman, medieval, modern. The modern family, its functions and its problems.

605. The Immigrant. Four credit hours. Winter Quarter. Prerequisite, Sociology 401-402 or 410. Mr. Miller.

A study through the various immigrant groups of social attitudes resulting from political, religious, economic and social relations of groups. The psychological and practical problems of adjustment. General principles of group relationship rather than specific methods of procedure.

607. The Race Problem. Four credit hours. Autumn Quarter. Prerequisite, Sociology 401-402 or 410. Mr. Miller.

Survey of contemporary and potential race contacts and conflicts throughout the world. Development of race consciousness. Relations of Caucasians, Negroes, Indians, and Mongolians in the United States.

620. Social Treatment of the Child. Three credit hours. Spring Quarter. Prerequisite, Sociology 401-402. Miss Jones.

Principles and methods of caring for dependent and neglected children in their own homes, in foster homes, and in institutions. Protective work for the maladjusted and problem child.

621. The Child and the Community. Three credit hours. One Quarter. Autumn and Spring. Open only to Seniors in Home Economics. Miss Spaeth.

The family as a social institution, its historical development and present status, modern conditions affecting human life, the child as affected by economic and social factors outside the home. The dependent and the neglected child. Social legislation affecting the child. Social responsibility toward the child.

This course is open only to students in Home Economics who do not have credit for Sociology 601 or 617.

625. The Criminal. Three credit hours. Spring Quarter. Prerequisite, Sociology 401-402. Mr. Hagerty.

The social, economic, and physiological causes of crime. The changing character of crime as modified by the legal code. Types of criminals, the instinctive, habitual, professional, etc. The classical and positive schools of criminology. The relation of feeble-mindedness and degeneracy to crime. Juvenile crime, its causes and prevention.

645. Leisure and Recreation. Four credit hours. Autumn Quarter. Prerequisite, Sociology 401-402. Mr. Blackburn.

The sources of leisure in early and modern society. The social significance and uses of leisure. The social functions of play. Historical aspects of play. The recreation problems of modern communities from the standpoint of control and of public provision.

646. Social Organization and Administration of Recreation Facilities. Four credit hours. Winter Quarter. Prerequisite, Sociology 645. Mr. Blackburn.

Methods and means of control of commercialized recreation with special reference to American cities and towns. The promotion and organization of public and semi-public agencies. The administrative control of playgrounds, social centers, clubs, and other non-commercialized agencies. The coordination of the recreation facilities of the community.

656. Rural Social Institutions. Four credit hours. Autumn Quarter. Prerequisite, Sociology 401-402. Mr. Denune.

The problems of health, recreation, social intercourse, housing, child welfare, dependency, defectiveness, and delinquency in American rural communities and small towns. The agencies and organizations dealing with these problems.

657. Welfare Problems in Rural Communities. Four credit hours. Winter Quarter. Prerequisite, Sociology 656 or Rural Economics 606. Mr. Denune.

The relation of the school, the church, the Christian Associations, recreational societies, relief agencies, and the Juvenile Court to welfare problems in rural communities and small towns. A consideration of recreation, social intercourse, health, child welfare, dependency, defectiveness, and delinquency. This course is designed to give to rural teachers, ministers, and social workers a knowledge of the welfare problems which exist in rural communities and the methods by which they are being approached by rural workers.

665. Social Order and Social Control. Three credit hours. Autumn Quarter. Textbooks, lectures, papers, and discussions. Prerequisite, Sociology 401-402 or 410. Mr. Lumley.

The social order, its nature, its varieties, its origin; the agencies of social control, such as custom, conventionality, social suggestion, public opinion, law, education, religion, art, ceremony, ideals, personality. Additional readings for graduate credit.

FOR GRADUATES

An undergraduate student shall not be permitted to take any course in the "800" group except by permission of the Graduate Council.

801-802-803. History of Sociological Thought.

805-806-807. American Sociological Theory.

809-810. Research in Social Control.

811-812. Modern Social Welfare Movements.

815. The Community.

816. Community Surveys.

817-818-819. Research in the Field of Human Migrations.

821-822-823. Graduate Seminary.

824. Research in the History and Organization of Social Welfare Activities.

831-832-833. Administration of Social Agencies.

841-842-843. Research in Social Statistics.

845-846. Methods of Sociological Investigation.

847-848-849. Research in Penology.

850-851-852. Research in Rural Social Institutions.

For description of graduate courses in this department see the Bulletin of the Graduate School.

SPANISH

(See Romance Languages and Literatures)

SURVEY OF EDUCATION

401. Introductory Survey in Education. One credit hour. Autumn Quarter. Required of all Freshmen in the College of Education. Not open to Sophomores, Juniors, or Seniors except by permission. The Dean.

Adaptations and new adjustments to University conditions of learning. Academic orientation. A survey of guiding principles and laws in economical learning. The relation of the teaching profession to other educational agencies and their bearing on social effectiveness.

VOCATIONAL EDUCATION

Office, 300 Education Building

PROFESSORS HORRIDGE AND PATTY, ASSISTANT PROFESSOR STINE

†501. Survey of Commercial Education. One credit hour. Required in the curriculum in Commercial Teacher Training.

Consideration of the fundamental purposes of commercial education in the light of its wider social significance.

502. Curricula for Trade and Industrial Courses. Two credit hours. Autumn Quarter. Mr. Patty.

Detailed analyses of trades now taught in the schools, for the purpose of determining content of courses and curricula. Examples of trades so analyzed are carpentry, plumbing, tailoring, machine shop practice, patternmaking, and printing. Current vocational curricula critically studied in the light of these analyses.

† Not given during the academic year, 1927-1928.

504. Part-time (General Continuation) School Curricula. Two credit hours. Winter Quarter.

Determination of subject matter suitable for meeting the needs of general continuation school pupils. Development of teaching units from analysis, and classification of units for teaching purposes.

505. Methods of Teaching in Part-time (General Continuation) Schools. Two credit hours. Winter Quarter.

Detailed study of the teaching problems peculiar to continuation school work.

506. Introduction to Vocational Education. Two credit hours. Autumn Quarter. Mr. Horridge.

This course aims to give the student an intelligent introduction to vocational industrial education. Definition of various types of industrial education; relation of vocational education to liberal education; past and present methods in vocational industrial education; prevailing theories regarding a solution of the industrial education problem.

This course is not open to students who have credit for Vocational Education 603.

507. Curricula for Commercial Courses. Three credit hours. Summer Quarter, first term. Required in the curriculum in Commercial Teacher Training.

Survey and analyses of different commercial occupations and determination of the educational needs of persons in such occupations. Study of types of commercial curricula. Formulation of model curricula.

510. Shop Problems. Three credit hours. Autumn Quarter. Mr. Horridge.

Critical study of vocational industrial shop problems in schools and industry.

511. Special Methods in Vocational Teaching. Two credit hours. One Quarter. Winter and Spring. Mr. Horridge.

Methods of teaching industrial subjects in vocational schools. The application of basic teaching principles to the practical problems of classroom procedure.

This course is not open to students who have credit for Vocational Education 301 and 302 or 503.

512. Special Methods in Vocational Teaching. Two credit hours. Spring Quarter. Prerequisite, Vocational Education 503 or 511. Mr. Horridge.

A continuation of Vocational Education 511.

FOR ADVANCED UNDERGRADUATES AND GRADUATES

602. Principles of Part-time Education. Two credit hours. Autumn Quarter. Prerequisite, junior standing.

An introductory course consisting of a study of types of part-time education and the aims and purposes of each.

604. Bases of Vocational Education. Two credit hours. Winter Quarter. Two recitations each week. Prerequisites, junior standing and Vocational Education 506. Mr. Horridge.

Consideration of the vocational education movement with respect to the agencies that have played important parts in its development.

†605. Principles of Commercial Education. Three credit hours. Three recitations each week. Prerequisite, junior standing.

For teachers or prospective teachers of commercial subjects in junior or senior high schools. Topics considered: meaning, purpose and scope of commercial education in secondary schools; importance of and procedure in making occupational surveys in the field of commercial education.

606. Principles of Vocational Guidance. Three credit hours. Spring Quarter. Prerequisite, junior standing. Mr. Patty.

An inquiry as to the origin, development, meaning, scope, purposes, and methods of vocational and educational guidance.

607. Vocational Counseling. Two credit hours. Winter Quarter. Two recitations each week. Prerequisites, junior standing and Vocational Education 606. Mr. Patty.

A consideration of the supervisory and administrative problems connected with vocational guidance and placement. Counseling with pupils, parents and employers.

Survey of vocational guidance material and of the teacher's technique in the use of this material; educational, selective, trade and intelligence tests.

†610. Organization and Management of Day Industrial Schools. Two credit hours. Two recitations each week. Prerequisites, junior standing and Vocational Education 506. Mr. Horridge.

Organization of courses of instruction; types of buildings; equipment; selection, training and supervision of instructors; costs; records and certification in relation to the day industrial school.

***611. Organization and Management of Evening Industrial Schools.** Two credit hours. One Quarter. Two recitations each week. Prerequisites, junior standing and Vocational Education 506. Mr. Horridge.

Organization of courses of instruction; types of buildings; equipment; selection, training and supervision of instructors as related to the evening industrial school.

612. Organization and Management of Part-time Schools. Two credit hours. Winter Quarter. Two recitations each week. Prerequisites, junior standing and Vocational Education 506.

A study of the organization and management of general continuation schools and of part-time trade extension schools, both compulsory and cooperative.

620-621-622. Minor Problems. Two to four credit hours. Autumn,

* Not given in 1927-1928.

† Not given during the academic year, 1927-1928.

Winter, Spring Quarters. Prerequisite, senior standing or special permission of the instructor. Mr. Horridge, Mr. Patty, Mr. Stine.

Investigation of minor problems in vocational education and vocational guidance.

By permission of the Head of the Department and the Director of the Bureau of Educational Research, students enrolled in this course may obtain credit for research work done under the auspices of the Bureau staff.

COURSE OFFERED IN THE DEPARTMENT OF PRINCIPLES AND PRACTICE OF EDUCATION

485. Principles and Methods of Teaching Commercial Subjects. Three credit hours. Summer Quarter, first term. Lectures, readings, and recitations. Required in the curriculum in Commercial Teacher Training.

A study of the principles and methods of teaching as applied to standard commercial subjects.

FOR GRADUATES

An undergraduate student shall not be permitted to take any course in the "800" group except by permission of the Graduate Council.

801. Major Research.

805. Seminary in Vocational Education.

For description of graduate courses in this department see the Bulletin of the Graduate School.

ZOOLOGY AND ENTOMOLOGY

Office, 101 Botany and Zoology Building

PROFESSORS OSBURN, OSBORN (RESEARCH), BARROWS, KRECKER, AND DeLONG, ASSOCIATE PROFESSOR HINE, ASSISTANT PROFESSORS KENNEDY AND KOSTIR, MR. MILLER, MR. McCORMICK, MR. SETTERFIELD, MR. DUNHAM, AND DEPARTMENT ASSISTANTS

ZOOLOGY

401-402. General Zoology. Five credit hours. Two Quarters. Both 401 and 402 are given Autumn, Winter, Spring. Three lectures and two two-hour laboratory periods each week. Students intending to specialize in entomology should take this course in the Autumn and Winter Quarters of the first year. Mr. Kreckler, Mr. Kostir, Mr. Miller, Mr. Setterfield, Mr. McCormick, and assistants.

A course intended to give the student a general view of the nature of animal life and to point out its relation to man's economic and social activities. The chief topics considered are as follows: nature and structure of living substance, food and its energy transformations, the essentials of reproduction; a review of the animal groups with special stress on useful and harmful qualities; animal distribution and relation to environment; heredity and evolution with particular stress upon their relation to human affairs.

403. General Principles of Heredity. Five credit hours. One Quarter. Autumn and Spring. Five lectures each week. Prerequisite, Zoology 401-402 or Botany 401-402 or equivalent. Mr. Barrows.

A study of heredity in animals and plants, to serve as an introduction to heredity, as a basis for advanced work in plant and animal breeding, and as an aid in the analysis of biological and sociological problems into which the question of heredity enters. The subject will be presented in lectures, illustrated with lantern slides and actual specimens. Exercises in the form of problems will be assigned. The different types of heredity studied will be chosen from the animal and plant material which best illustrates the subject. Hereditary characters found in man will be used to a large extent. The course will be made as simple and practical as the subject will permit. Present-day theories and technical applications will be left for discussion in the more advanced courses to which they properly belong.

407. Animal Microtechnic. Three credit hours. Spring Quarter. A laboratory course. Laboratory work, assigned readings, and conferences. This course is designed for students intending to major in one of the biological sciences or intending to teach in secondary schools. Prerequisites, Zoology 401-402 or equivalent, and permission of the instructor. Limited to twelve students. Mr. Kostir.

A course in the theory and practice of microscopic methods, including fixing, embedding, sectioning, and staining of animal tissues, making permanent preparations, and special manipulation of microscopic accessories.

***408. Ornithology.** Five credit hours. Spring Quarter. Two lectures and three two-hour periods of laboratory or field work each week. Prerequisite, two Quarters of biological science. Mr. Hine.

A study of the classification of birds, structure, food habits, nests, eggs, and migration, together with the identification of species from museum material and in the field.

409. Evolution. Five credit hours. One Quarter. Winter and Spring. Five lectures each week. Prerequisite, two Quarters of biological or geological science. Mr. Osburn.

The facts and theories of organic evolution. The general treatment is: historical aspects, evidences, factors, and the theories proposed from the time of Lamarck to the present.

FOR ADVANCED UNDERGRADUATES AND GRADUATES

604. Animal Ecology. Five credit hours. Spring Quarter. Two lectures and three two-hour periods of laboratory or field work each week. Prerequisite, Zoology 401-402 and two additional Quarters of a biological science. Mr. Kreckler.

An introduction to the study of animals in their natural surroundings which will include ponds, streams, fields, and woodlands. Animal associations and the various factors which affect animals in relation to their environment are considered.

This course is recommended to students who expect to teach biology. Students who desire to continue the subject may take up some particular phase of the work and should then register in Zoology 700-701-702-703.

* Not given in 1927-1928.

615-616. Advanced Zoology of Invertebrates. Five credit hours. Autumn and Winter Quarters. Two lectures and three two-hour laboratory periods each week. Lectures, laboratory exercises and occasional field trips. Prerequisite, Zoology 401-402 and two additional Quarters of biological science. Mr. Kostir.

A study of the structure, life histories, habits, and relationships of invertebrate animals, together with the consideration of important biological principles. Especially recommended as a fundamental course for students specializing in biological science.

This course is not open to students who have credit for Zoology 405-406.

617. Cellular Biology. Five credit hours. Spring Quarter. Three lectures and two laboratory periods each week. Prerequisite, Zoology 401-402 or equivalent and at least two additional Quarters of biological science. Mr. Kostir.

A study of the organization of activities of the living cell. Special attention will be given to the results of the investigation of unicellular organisms.

***620. Evolution of the Animal Groups.** Five credit hours. Spring Quarter. Prerequisites, Zoology 409 and one Quarter of comparative anatomy or equivalent. Mr. Osburn.

The principles of evolution as applied to the origin and relationships of various animal groups with special emphasis on the advancement shown by the vertebrate classes from fishes to mammals.

NOTE: TEACHING COURSES. For the Teaching Course in this department see the Department of Principles of Education, Course 705.

FOR GRADUATES

An undergraduate student shall not be permitted to take any course in the "800" group except by permission of the Graduate Council.

801-802-803. Seminary in Zoology.

805-806-807. Invertebrate Zoology.

808-809. Invertebrate Embryology.

811-812-813. Research Work.

For description of graduate courses in this department see the Bulletin of the Graduate School.

ENTOMOLOGY

451. Economic Entomology. Five credit hours. One Quarter. Autumn and Spring. Three lectures and two two-hour laboratory periods each week. Prerequisite, Zoology 401-402 or equivalent. Mr. DeLong and assistants.

The economic importance of insects, the basis for insect control, a survey of the important pests of farm, garden, orchard, forest, household, mill, storehouse and those

* Not given in 1927-1928.

that affect the health of man and domestic animals, with a discussion of their specific control.

Field observations of habits and damage, the recognition of many economic species and the preparation and application of remedial measures. Students are required to prepare a collection. Those desiring to collect specimens in advance should get printed instructions from the department.

452. Economic Entomology. Five credit hours. Winter Quarter. Three lectures and two two-hour laboratory periods each week. Prerequisite, Entomology 451. Mr. DeLong and assistants.

A general and systematic treatment of insects, mites, and ticks, with special attention to destructive beneficial forms.

FOR GRADUATES

An undergraduate student shall not be permitted to take any course in the "800" group except by permission of the Graduate Council.

801-802-803. Seminary in Entomology.

811-812-813. Research Work.

814-815-816. Biological Control of Insects.

For description of graduate courses in this department see the Bulletin of the Graduate School.